



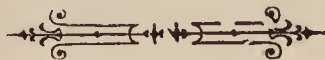
County Borough of Sunderland.

ANNUAL REPORT

ON THE

Health and Sanitary Condition
of Sunderland,

FOR THE YEAR 1910.



HENRY RENNEY, M.D., B.S., D.Hy., D.P.H.,

Medical Officer of Health,


Medical Superintendent of the Borough
Sanatorium.



Sunderland :

PRINTED BY E. SWORD & SONS, HOLMESIDE

1911.



Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

<https://archive.org/details/b30147359>

COUNTY BOROUGH OF SUNDERLAND.

HEALTH COMMITTEE.

CHAIRMAN.

COUNCILLOR ARTHUR RITSON, J.P.

VICE-CHAIRMAN.

ALDERMAN JOHN TURNBULL, J.P.

Alderman W. BRUCE, J.P.	Councillor W. H. HOPE.
„ J HARRISON, J.P.	„ G. S. LAWSON.
„ S. RICHARDSON, J.P.	„ I. G. MODLIN, M.D.
„ J. H. SMITH.	„ G. NEW, J.P.
„ H. J. TURNBULL, J.P.	„ W. RAINE.
Councillor A. S. BAINBRIDGE, J. P.	„ N. RICHARDSON.
„ W.H.CHALLONER, J.P	„ L. THOMPSON.
„ G. CHARLTON,	„ W. WALKER.
„ R. H. DIX, M.D.	„ R. J. WILSON.
„ W. H. FOSTER.	„ A. F. YOUNG.

Meetings every alternate Thursday, at 7-30 p.m.

Accounts at 7.20 p.m.

OFFICIALS OF THE HEALTH DEPARTMENT.

MEDICAL OFFICER OF HEALTH AND MEDICAL SUPERINTENDENT OF THE BOROUGH SANATORIUM.

HENRY RENNEY, M.D., B.S., D.Hy., and D.P.H. (Durh.)

DEPUTY MEDICAL OFFICER OF HEALTH.

ROBT. S. HUBBERSTY, M.D., C.M., (Edin.) M.R.C.S. (Eng.)

PUBLIC ANALYSTS :

JOHN PATTERSON, F.I.C.

JOHN. T. DUNN, D.Sc., F.I.C..

BACTERIOLOGIST :

H. J. HUTCHENS, D.S.O., M.A., M.R.C.S., L.R.C.P., D.P.H. (Oxon).

OFFICIALS OF THE BOROUGH SANATORIUM :

MATRON - - - Miss M. A. MacRAE.

ENGINEER- - - W. S. OATES.

INSPECTOR OF NUISANCES :

JOHN PENNOCK (Cert. San. Inst.)

DEPUTY INSPECTOR OF NUISANCES.

JAMES S. WATSON (Cert. San. Inst.)

ASSISTANT INSPECTORS OF NUISANCES :

T. H. DOWNES (Cert. San. Inst.) CHAS. BROUGHTON (Cert. San. Inst.)

GEO. A. SINCLAIR, „ FRED OATES, „

ROGER LEE, „ GEORGE REED, „

FRED DYER (Cert. San. Inst.)

OFFICIALS OF THE HEALTH DEPARTMENT.—*Contd.*

CLERK :

HENRY BROUGHTON (Cert. San. Inst.)

ASSISTANT CLERKS :

JAMES W. SOLLEY.

JAS. MILLER.

ERNEST F. STOKER.

DISINFECTOR :

THOS. S. BLAND.

INSPECTOR OF DRAINS AND SANITARY FITTINGS FOR NEW HOUSES :

FRANK E. RAIN (Cert. San. Inst.)

EXTRA ASSISTANT INSPECTORS OF NUISANCES :

ERNEST BRITTAIN (Cert. San. Inst.)

WM. ROBSON (Cert. San. Inst.)

HOUSING SUPERINTENDENT, HARRISON BUILDINGS

AND ASSISTANT SANITARY INSPECTOR :

JOSEPH D. WARD (Cert. San. Inst.)

LADY HEALTH VISITORS :

Miss E. LEE (Cert. San. Inst.)

Miss M. E. BARBER (Cert. San. Inst. and C.M.B.)

Miss M. BURGESS (Cert. San Inst. and C.M.B.)

HEALTH DEPARTMENT,
TOWN HALL,
SUNDERLAND.

TO THE CHAIRMAN, VICE-CHAIRMAN, AND MEMBERS
OF THE HEALTH COMMITTEE.

GENTLEMEN,

I have the honour to submit to you the Report on the Health and Sanitary Condition of Sunderland for the year 1910, being my Seventh Annual Report.

It is gratifying to find that the health of the Borough continues to improve, as shown by a succession of falling death-rates, the rate for the past year being 15·8 per 1,000 of the population, calculated on the estimated population for that year. No method of estimating the population of a community, which is free from error, has yet been devised. That now in general use by Medical Officers of Health, is worked by geometrical progression, and assumes that the population has gone on increasing or decreasing since the last census at exactly the same rate that it did between that and the previous census. Whilst my report is in the Press, I find that the provisional figures of the census for 1911 have been returned, the population of Sunderland on April 2nd, 1911, being given as 151,162. For statistical purposes the Registrar-General estimates the population to the middle of the year. My estimate for the year 1910, taken to the middle of the year, was 160,785. Thus there has been an over-estimation of probably ten thousand. I cannot say definitely as I have not yet had time to make the necessary calculations.

There must have been a very large number of people who have emigrated during the last ten years, for if we add the excess of births over deaths during that period to the census population of the year 1901, we find that the figure is 166,744.

Thus, Census population 1901 = 146,077

Add excess of births over deaths

during inter-censal period = 20,667

166,744

However, even with a population of less than 151,162 at the *middle* of the year 1910, I am of opinion that when the calculation is made, our death-rate for that year will be very near 16·8 per 1,000, and if so, still the lowest on record for the Borough.

I beg to draw your attention to a number of Charts which I have introduced into this Annual Report, showing various statistics in graphic form, relating to the health of the Borough.

I have to thank the Chairman, Vice-Chairman, and Members of the Health Committee for their courtesy and help in the administration of the work of the Department during the year.

I am, Gentlemen,

Your obedient Servant,

HENRY RENNEY,

Medical Officer of Health.

May, 1911.

INDEX.

	Page.
Abatement of Nuisances	112, 118
Acreage of the Borough	1
Admissions to Borough Sanatorium	45-47
Analysis of Food and Drugs	75-81, 114, 130-132
Analysis of the Principal Causes of Death	11
" " Drinking Water	53
Analyst's Quarterly Reports	75-81
Appendix of Vital and Sanitary Statistics	85
Ashpits, number abolished.....	112
 Bacillus Coli in Water	 48
Bacteriological Examinations	48-52
Bakehouses	124
Births	3, 4
" Notification of	67
Birth-rate	3, 4
" for Great Towns.....	3
Books, Disinfection of	43
Borough Sanatorium	45-47
Butchers' Shops, Inspection of	113
 Census of 1901	 2
" Populations of Wards	2
Chart showing Consumption Death-rate, 1885-1910	15
" " Comparative view of the Principal Causes of Death	13
" " Death-rates, 1866-1910	6
" " Death-rate from Diarrhoeal Diseases, 1873-1910	59
" " Death-rate of Measles, 1873-1910	39
" " Death-rate of all Respiratory Diseases	17
" " Enteric and Continued Fever Attack-rate, 1886-1910.....	33
" " Enteric and Continued Fever Death-rate, 1885-1910.....	33
" " Enteric and Continued Fever Death-rate, 1885-1910 (Larger Scale)	35
" " Infantile Mortality, 1885-1910.....	55
" " " " " in Districts	61
Closure of Schools on Account of Infectious Diseases	38-42
Common Lodging-Houses	114, 122
Complaints received and attended to	112, 123
Consumption Sanatoria.....	43, 44
Consumption, Notification of	87
Continued Fever	19, 20
Cow Sheds	122
 Dairies, Cow Sheds, and Milkshops.....	 113, 122
Deaths	7
" from all Causes.....	94-96
" in Districts	7
" in Quarters	7
" " 1909-1910.....	10
" from Infectious Diseases, 1900-1910	20

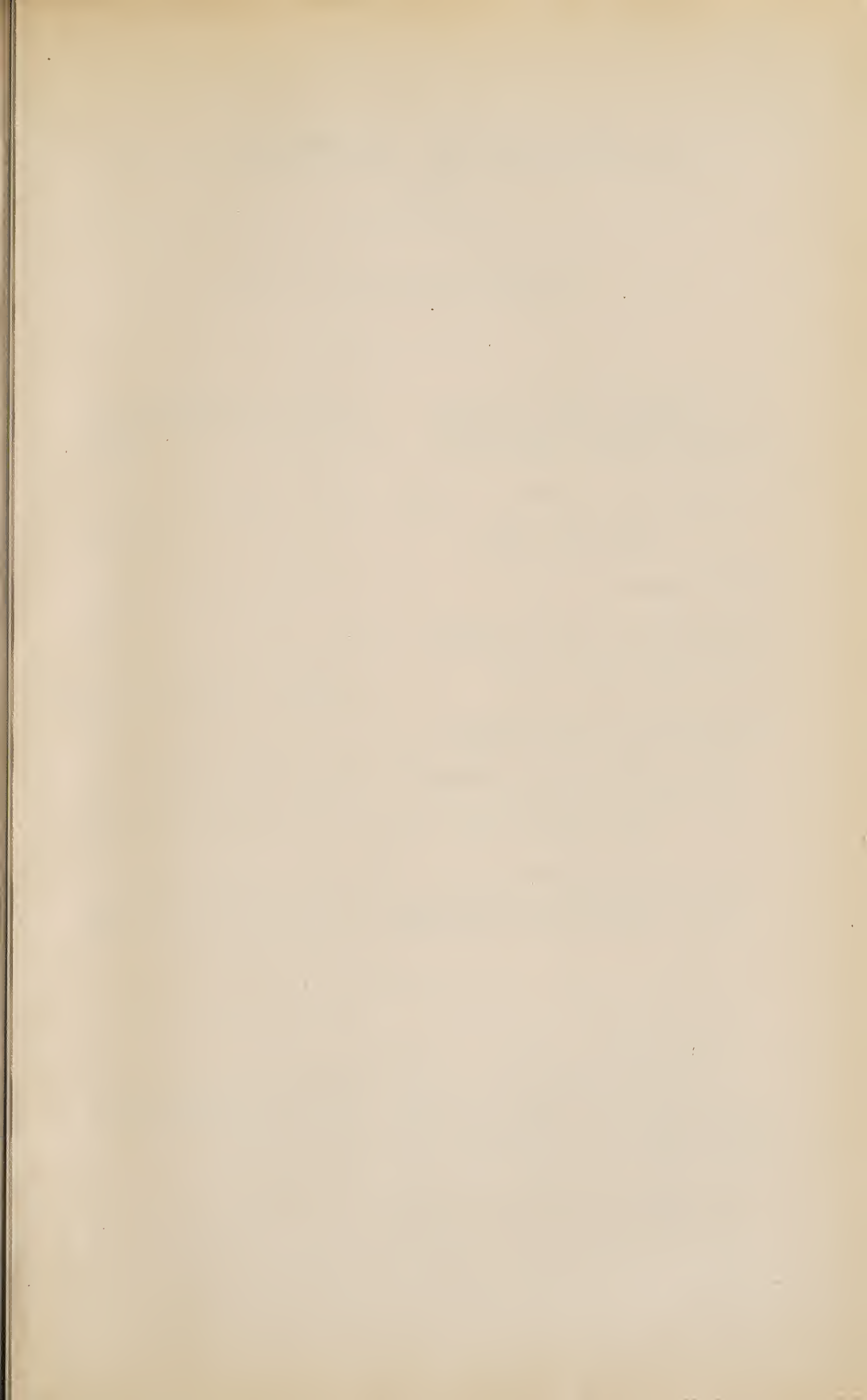
	Page.
Death-rate of the Borough	7
" " " 1873-1910.....	7
" " " compared with Great Towns	8, 9
Death-rate in the Sanatorium	45, 47
Death-rates in the Great Towns	8, 9
Density of Population	1
Diarrhoea, Deaths from	20
Diarrhoea, Death-rates in the Great Towns	8, 9
Diphtheria Death-rates in Great Towns	8, 9
Diphtheria	19, 20, 25, 26
Disinfecting Work	121
Disinfection of Books by Dry Heat	43
Domestic Workshops.....	128
Drains and Sanitary Fittings of New Houses, Work of the Inspector of the	68
Drains Tested by Sanitary Inspectors	112, 120
Dr. Hancock's Visit	67
Enteric Fever	19, 20, 26-38
" " Death-rates in Great Towns	8-9
Erysipelas	19
Examination of Milk Samples	50, 75-81
Factories and Workshops	72, 114, 124, 126
" " Notices served.....	52, 54, 125
Females at Child-bearing Ages	4
Fever Death-rates in the Great Towns	8, 9
Food, Samples Analysed	75-81, 130-1
" " " Informal Samples	132
" Unsound	121
Great Towns, Death-rates in the.....	8-9
Harrison Buildings, Superintendent's Report	69-70
Health of the Great Towns compared with Sunderland	8-9
Health Visitors	65
Home Workers	73, 74
Hospital, The Isolation	45, 47
Housing, Town Planning etc., Act, 1909.....	68, 116
Infant Mortality	57, 58, 63, 64, 65
" " contrasted with that of England and Wales	54
" " in the Great Towns.....	8-9
Infectious Diseases Cases visited by Sanitary Inspectors	117
" " Deaths from	20
" " In Schools	42
" " Number of Cases Notified, 1901-1910	19
Inhabited Houses.....	85
Inspections made by the Sanitary Staff	111, 117
Inspector of Nuisances, Report of the	111
Lady Health Visitors, Report of	65
Lodging Houses	114, 122

	Page.
Magisterial Proceedings	129
Marriages	3
Measles	38
Meteorological Observations	71
Midwives, Report on	66
Milk Analyses	75-81
Milk Samples, Bacteriological Examination of	50
Milk Shops	113, 122
 New Houses, Drains Tested	68
Notices Served for the Abatement of Nuisances	119
Notifications of Infectious Diseases.....	19
Notification of Births	67
Notification of Consumption	87
Nuisances dealt with	112
 Offensive Trades	114, 123
Overcrowding	112
Outworkers	73, 114
 Plague Infection (Local Government Board Order, dated Nov. 10th, 1910)	68
Population.....	1
" Age and Sex Distribution	2
" Women at Child-bearing Ages	4
Phthisis, Sanatorium Treatment	43, 44
Privies and Ashpits Abolished	112
 Registration Districts, Population of	1
Rents Collected, Harrison Buildings	69-70,
Report of the Chief Sanitary Inspector	111
" Public Analyst	75-81
" Inspector of Drains, etc., of New Houses	68
" Lady Health Visitors	65
" Superintendent of Harrison Buildings.....	69-70
 Sale of Food and Drugs Acts	75
" " " The Analyst's Quarterly Reports	75-81
" " " Proceedings under	114
Sanatoria for Consumption	43, 44
Sanatorium, The Borough	45-47
Sanitary Inspector's Report	111
Sanitary Conveniences	115, 133
Scarlet Fever	19, 20, 25
School Closure on Account of Measles	38, 41, 42
Seizure of Unsound Food	121
Slaughter Houses	113
Small-pox and Vaccination	42, 43
Statistical Summary	facing 1
Streets in which Infectious Diseases occurred in 1910.....	100
 Tenemented Houses, Inspection of	68
Testing of the Drains and Sanitary Fittings of New Houses	68
" " " " Old Property	112, 120
Typhoid Fever	19, 20, 26, 38
Tuberculous Milk.....	50, 51
Tuberculosis Dispensary	44

	Page.
Unsound Food, Seizures of	121
Vaccination, State of	42, 43, 109
Water, Bacteriological Examination of	48, 50
Wards, Population of, at Census	2
Whooping Cough	26
Work done in the abatement of Nuisances	112
Workplaces	128
Workshops Inspections of	72, 124, 126
,, Notices	125
,, Registered	127
Zymotic Diseases, Deaths from	20

APPENDIX.

	Page.
Population, Births, and Deaths for the year 1910 and 10 years preceding	85
Population, Births, and Deaths for the three Districts of the Borough	86
Cases of Infectious Diseases Notified	87
Causes of, and Ages at, Death	88
Infantile Mortality in the Borough	90
" " " East District	91
" " " West District	92
" " " North District	93
Deaths from all Causes	94-96
" " " in each District	97-99
Streets in which Zymotic Diseases occurred	100-108
Vaccination Returns	109



STATISTICAL SUMMARY,

1910.

Area of the Borough	...	...	...	...	3,357 acres.
Inhabited Houses (Census, 1901)	...	...	...		21,473
Population (Census, 1901)	...	...	...		146,077
„ (Estimated, 1910)	...	...	...		160,785
Births Registered in 1910	...	...	...		4,582
Birth-Rate per 1,000 Inhabitants	...	...	...		28·5
Deaths Registered in 1910	...	...	...		2,548
Death-rate per 1,000 Inhabitants.	...	...	...		15·8
„ from Zymotic Diseases*	...	...	...		1·3
„ from Enteric Fever	...	...	...		0·07
„ from Phthisis	...	...	...		1·2
„ Infantile, per 1,000 Births		...	...		128

* “Zymotic Diseases” includes Smallpox, Measles, Typhus fever, Scarlet Fever, Whooping-cough, Diphtheria and Membranous croup, Enteric fever, Diarrhoea, and Dysentery.

COUNTY BOROUGH OF SUNDERLAND.

HEALTH DEPARTMENT.

ANNUAL REPORT

FOR THE YEAR 1910.

POPULATION.

The population, estimated to the middle of 1910, was 160,785 being an increase of 1,648.

The population is an estimation based on the Census Returns. This estimate is liable to error; indeed it is never quite accurate, and it would greatly facilitate a correct return of the population for each inter-censal year if the Census were taken every five years instead of every ten as at present.

Table A shows the estimated population in each of the three registration sub-districts of the Borough, the area of these districts, and the number of people per acre.

TABLE A.

	Population.	Area in Acres.	Density of Population per Acre.
Sunderland East.....	59,468	897	66·3
„ West	66,076	1,724	38·3
„ North	35,241	736	47·9
Borough	160,785	3,357	47·9

Table B shows the Age and Sex Distribution (estimated to the middle of the year). For instance, taking line No. 1—there were in 1910 estimated to be 4,642 persons living under the age of 1 year, of whom 2,311 were males and 2,331 females.

TABLE B.

At Ages	Persons.	Males.	Females.
Under 1 year	4642	2311	2331
1 to 5 years	15291	7719	7572
5 „ 10 „	16801	8412	8389
10 „ 15 „	16642	8444	8198
15 „ 20 „	17039	8206	8833
20 „ 25 „	16570	7667	8903
25 „ 30 „	14713	7118	7595
30 „ 35 „	11541	5615	5926
35 „ 40 „	10276	5053	5223
40 „ 45 „	8174	3808	4366
45 „ 50 „	7701	3820	3881
50 „ 55 „	6204	3249	2955
55 „ 60 „	5259	2771	2488
60 „ 65 „	3873	1892	1981
65 „ 70 „	2621	1261	1360
70 „ 75 „	1799	841	958
75 „ 80 „	945	454	491
80 „ 85 „	554	178	376
85 and Upwards	140	53	87
Totals	160785	78872	81913

CENSUS POPULATION.

The Census population of 1901 was 146,077; 71,533 being males, and 74,494 females.

The Census populations of the various Wards were as follows :—

Bishopwearmouth	9,964	Monkwearmouth-Shore	10,709
Bridge	12,944	Pallion	8,560
Central	9,433	Park	9,643
Colliery	8,179	Roker	6,975
Deptford	10,501	St. Michael's	8,098
East	9,524	Sunderland	9,829
Hendon	5,750	Thornhill	9,230
Monkwearmouth	5,869	West	10,869

MARRIAGES.

The number of Marriages registered in the Registration District of Sunderland (which, in addition to the Municipal Area, includes the Townships of Ford, Tunstall, Ryhope, Fulwell, Southwick, and Hylton), during each of the past ten years is as under :—

Year.	No. of Marriages.	Year.	No. of Marriages.
1901	..... 1,625	1906	..... 1,757
1902	..... 1,559	1907	..... 1,683
1903	..... 1,457	1908	..... 1,361
1904	..... 1,545	1909	..... 1,412
1905	..... 1,572	1910	..... 1,530

BIRTHS.

The Births registered during the year 1910 numbered 4,582 the birth-rate being 28·5 per 1,000 of the population, being the lowest yet recorded.

The number of Births in 1910 shows a decrease of 183 as compared with that of the previous year, and the Birth-rate is 0·9 lower. The rate is 3·5 per 1,000 higher than the average Birth-rate of the 77 large towns. It has been falling for the last nine years.

The Birth-rates during the 1st, 2nd, 3rd, and 4th quarters were 27·0, 30·5, 29·2, and 27·2 per 1,000 respectively.

The Birth-rate in the 77 large towns of England and Wales was 25·0 per 1,000 of the population.

Table showing the number of Births of Males and Females, together with the Birth-rates for the 10 years, 1901 to 1910 :—

TABLE C.

Year.	Births Registered.			Birth Rate.
	Males.	Females.	Total.	
1901	2588	2691	5279	36·0
1902	2742	2649	5391	35·7
1903	2598	2597	5195	34·5
1904	2654	2540	5194	34·3
1905	2615	2608	5223	34·2
1906	2786	2589	5375	34·8
1907	2746	2584	5330	34·2
1908	2628	2552	5180	32·9
1909	2493	2272	4765	29·4
1910	2337	2245	4582	28·5

FEMALES AT CHILD-BEARING AGE.

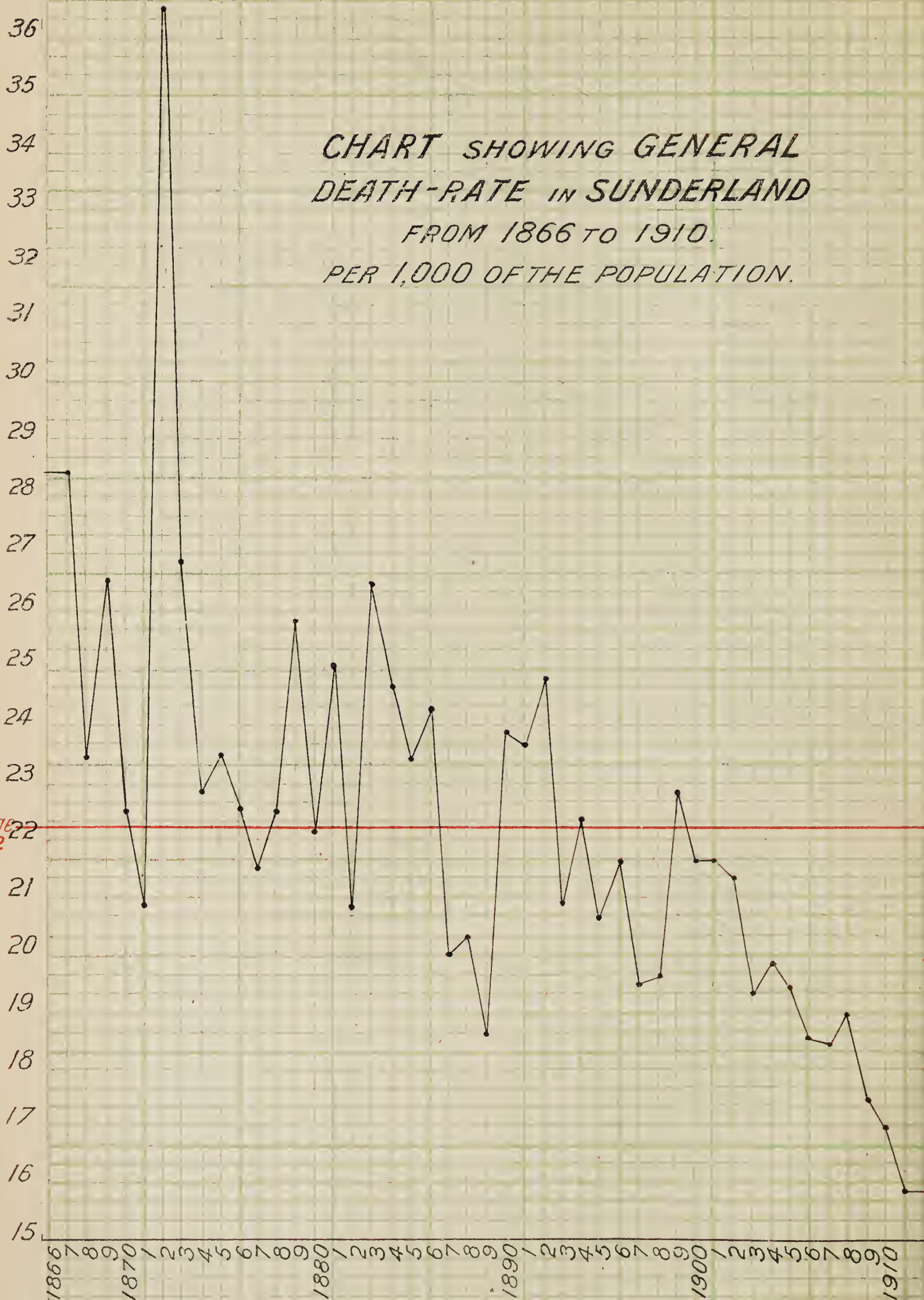
For comparison for Birth-rates it is more important to know the number of children born per 1,000 women at child-bearing age, than the number born per thousand of the population. The following Table is an estimation of the number of females living in Sunderland at child-bearing years, for the last ten years, (calculated from the Census Returns for the years 1891 and 1901), and the number of children born in each year :—

YEAR.	Estimated Number of Women at Child-bearing age.	Number of Children Born.	Number of Children Born per 1,000 Women at Child-bearing Age.
1901	36269	5279	145
1902	36709	5391	147
1903	37154	5195	139
1904	37605	5194	138
1905	38062	5223	137
1906	38755	5375	138
1907	39197	5330	136
1908	39683	5180	130
1909	40252	4765	116
1910	40846	4582	112

Number

*CHART SHOWING GENERAL
DEATH-RATE IN SUNDERLAND
FROM 1866 TO 1910.
PER 1,000 OF THE POPULATION.*

Average
22.2



THE DEATH-RATE.

It is satisfactory to have again to record a low death-rate. In 1909 it was 17·0 per thousand—for the year 1910 I have to report that the death-rate was 15·8 per thousand, being the *lowest yet recorded in the history of the Borough*.

The death-rates from 1873 to 1910 are given in the Table below, and are shown in graphic form on Chart No. 1, page 6, from 1886 to 1910. Here it will be seen what a great reduction in mortality has taken place, and how far we are below the average death-rate of these years.

The Deaths registered during the year (including the deaths in the Borough Asylum) numbered 2,548.

The following Table gives the Death-rate per 1,000 since 1873 :—

Death-Rates per 1,000 of the Population (1873—1910).

Year.	Rate per 1,000	Year.	Rate per. 1,000	Year.	Rate per 1,000
1873	22·7	1886	20·0	1899	21·7
1874	23·6	1887	20·3	1900	21·7
1875	22·4	1888	18·7	1901	21·3
1876	20·8	1889	23·9	1902	19·3
1877	22·5	1890	23·7	1903	19·8
1878	25·5	1891	24·8	1904	19·4
1879	21·8	1892	20·8	1905	18·6
1880	24·4	1893	22·4	1906	18·5
1881	20·9	1894	20·7	1907	19·1
1882	26·4	1895	21·7	1908	17·5
1883	24·7	1896	19·6	1909	17·0
1884	23·3	1897	19·7	1910	15·8
1885	24·3	1898	22·8		

The Death-rates in the quarters during 1910 were as follows :—

1st quarter—Deaths	698...	Rate	17·3 per 1,000.
2nd	„ „	579...	„ 14·4 „
3rd	„ „	616...	„ 15·3 „
4th	„ „	655...	„ 16·3 „

The Death-rate in the Registration Sub-Districts of the Borough were as follows :—

Sunderland East	.....18·3 per 1,000.
Sunderland West	.....14·2 „
Sunderland North	.....14·6 „

The average Death-rate for the 77 large towns of England and Wales for 1910 was 13·4 per 1,000,

The following Table shows the Death-rate from all causes, from three principal Zymotic Diseases, and the Infantile Mortality figure of the 75 towns of England and Wales, for 1910 :—

TABLE D.

TOWNS.	Death Rates per 1,000 from all causes.	Death Rate per 1,000 from			Infant Mortality per 1,000 Births.
		Diph- theria.	Enteric Fever.	Diarrhoea	
London	12·7	0·09	0·04	0·28	102
Croydon	11·0	0·11	...	0·13	88
Willesden	9·2	0·07	0·01	0·19	83
Hornsey	7·7	0·08	0·03	0·11	71
Tottenham	11·5	0·10	0·08	0·11	88
West Ham	11·7	0·15	0·05	0·39	102
East Ham	9·0	0·09	0·04	0·15	95
Leyton	9·3	0·15	0·02	0·12	66
Walthamstow	9·1	0·10	0·02	0·11	95
Hastings	12·6	0·06	...	0·09	90
Brighton	14·3	0·02	0·07	0·39	111
Portsmouth	13·8	0·25	0·18	0·25	104
Bournemouth	11·7	0·10	...	0·12	76
Southampton	11·8	0·13	0·08	0·26	79
Reading	9·9	0·08	0·03	0·08	75
Northampton	11·4	0·06	0·04	0·22	112
Ipswich	13·6	0·03	0·03	0·12	98
Great Yarmouth	14·4	0·11	0·02	0·30	100
Norwich	12·5	0·09	0·03	0·22	104
Plymouth	13·5	0·11	0·07	0·33	114
Devonport	11·6	0·19	0·09	0·25	103
Bristol.....	11·5	0·16	0·02	0·19	91
Burton-on-Trent	11·3	0·24	0·04	0·09	80
Wolverhampton	12·6	0·03	0·01	0·18	108
Walsall	12·0	0·06	0·04	0·38	113
Llandsworth	8·4	0·06	0·03	0·17	79
West Bromwich	12·7	0·07	0·03	0·52	105
Birmingham.....	13·7	0·11	0·05	0·39	130
Kings Norton	8·0	0·23	...	0·13	67
Smethwick	10·9	0·11	0·11	0·36	107
Aston Manor	10·8	0·06	0·05	0·25	113
Coventry.....	14·2	0·16	0·06	0·33	87
Leicester	11·3	0·04	0·04	0·29	127
Grimsby	14·0	0·04	0·22	0·37	132
Nottingham	14·2	0·12	0·05	0·35	130
Derby	11·1	0·17	0·05	0·10	85
Stockport	15·7	0·13	0·03	0·18	137
Birkenhead	16·2	0·19	0·07	0·19	135
Wallasey	12·5	0·05	0·09	0·32	112
Liverpool	17·8	0·13	0·05	0·46	140
Bootle	14·7	0·09	0·03	0·38	129
St. Helens	14·5	0·07	0·11	0·36	125

TABLE D.—Continued.

TOWNS.	Death Rates per 1,000 from all causes.	Death Rate per 1,000 from			Infant Mortality per 1,000 Births.
		Diph- theria.	Enteric Fever.	Diarrhœa	
Wigan	15·2	0·09	0·28	0·27	134
Warrington	14·6	0·10	0·12	0·23	114
Bolton.....	13·4	0·15	0·06	0·38	117
Bury	14·7	0·14	0·05	0·28	125
Manchester	16·0	0·14	0·09	0·24	132
Salford	15·2	0·21	0·10	0·28	130
Oldham	17·3	0·07	0·07	0·51	128
Rochdale	15·0	0·10	0·07	0·33	105
Burnley	16·3	0·13	0·07	0·38	170
Blackburn	14·2	0·16	0·06	0·47	137
Preston	16·3	0·15	0·17	0·49	158
Barrow-in Furness	14·3	0·33	0·02	0·16	119
Huddersfield	16·6	0·16	0·05	0·32	100
Halifax	12·8	0·21	0·08	0·14	92
Bradford.....	14·0	0·13	0·10	0·33	127
Leeds.....	13·7	0·14	0·04	0·14	92
Sheffield	13·4	0·08	0·04	0·42	127
Rotherham	13·6	0·09	0·12	0·20	132
York	11·8	0·02	0·05	0·43	95
Hull	15·2	0·15	0·10	0·18	135
Middlesbrough	16·9	0·32	0·09	0·42	146
Stockton-on-Tees	15·2	0·13	0·13	0·36	125
West Hartlepool	11·5	0·17	0·03	0·36	133
SUNDERLAND	15·8	0·14	0·07	0·26	128
South Shields	13·6	0·04	0·05	0·16	114
Gateshead.....	13·0	0·08	0·02	0·28	152
Newcastle-on-Tyne	13·9	0·14	0·03	0·36	121
Tynemouth	17·1	0·18	0·07	0·50	126
Newport (Mon.)	13·5	0·11	0·04	0·31	114
Cardiff.....	11·9	0·12	0·04	0·36	112
Rhondda.....	15·7	0·10	0·08	0·61	136
Merthyr Tydfil	16·5	0·06	0·01	0·44	134
Swansea	17·6	0·16	0·02	0·33	124

TABLE E.

Table E shows the deaths from the principal diseases in the four quarters of 1909 and 1910.

DISEASES.	1910				1909.				1910	1909
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total (52 Weeks).	Total (53 Weeks.)
Smallpox .....	...	...	...	...	...	...	...	...	...	...
Measles	6	22	19	12	100	55	9	2	59	166
Scarlet Fever	4	5	1	4	3	5	2	6	14	16
Diphtheria	8	5	4	6	10	3	4	15	23	32
Whooping Cough	24	11	4	6	3	7	5	23	45	38
Enteric Fever	5	1	4	1	4	1	3	6	11	14
Diarrhœa	4	2	49	22	4	5	24	20	77	53
Syphilis	1	2	1	2	2	2	...	3	6	7
Puerperal Fever .....	...	2	2	1	2	...	...	1	5	3
Alcoholism	2	1	...	...	...	1	3	...	3	4
Rheumatic Fever	1	1	1	...	2	1	...	3	3	6
Cancer	31	31	27	34	26	27	37	27	123	117
Tabes Mesenterica	6	6	7	7	8	8	9	2	26	27
Tubercular Meningitis	6	9	7	7	8	6	9	6	29	29
Phthisis	54	45	50	44	63	52	28	41	193	184
Other Tubercular Diseases	7	7	4	13	12	11	9	9	31	41
Premature Birth	32	14	26	22	28	28	18	21	94	95
Old Age	59	40	37	50	49	23	24	48	186	144
Diseases of the Nervous System	57	69	69	70	100	85	52	67	265	304
Diseases of the Heart	54	45	54	61	59	56	52	58	214	225
Bronchitis	97	58	42	78	92	73	40	116	275	321
Pneumonia and Pleuro-Pneumonia ...	29	35	30	39	47	45	27	48	133	167
Broncho-Pneumonia ...	19	9	14	17	30	24	7	27	59	88
Diseases of the Digestive System ...	38	35	39	16	31	25	35	36	128	127
Inflammation of the Kidneys, and Bright's Disease	15	19	20	18	15	13	11	13	72	52
Accident.....	25	17	22	21	27	14	20	14	85	75
Homicide .....	...	6	...	2	1	1	2	...	6	4
Suicide	4	2	4	4	4	8	5	4	14	21

ANALYSIS OF THE PRINCIPAL CAUSES OF DEATH.

The following table shows the number of deaths, the death-rate per 1,000 from the principal causes, and the increase or decrease of the death-rate compared with the previous year :—

CAUSE OF DEATH	Number of Deaths.	Rate per 1,000 of Population	Increase or Decrease per 1,000 of the Population, on the year 1909.
All Tuberculous Diseases	279	1.73	Decrease 0.03 per 1,000
Bronchitis	275	1.71	„ 0.30 „
*Nervous Diseases	265	1.64	„ 0.27 „
Heart Disease	214	1.33	„ 0.08 „
Consumption	193	1.20	Increase 0.05 „
Old Age	186	1.15	„ 0.25 „
Pneumonia	133	0.82	Decrease 0.22 „
*Diseases of Digestive System	128	0.79	No change.
Cancer	123	0.76	Increase 0.03 „
Atrophy and Debility...	98	0.60	Decrease 0.05 „
Premature Birth	94	0.58	„ 0.01 „
Accident.....	85	0.52	Increase 0.05 „
Debility at Birth.....	80	0.49	„ 0.02 „
Diarrhœa	79	0.49	„ 0.16 „
Kidney Diseases.....	72	0.44	„ 0.12 „
Measles	59	0.36	Decrease 0.68 „
Broncho-Pneumonia	59	0.36	„ 0.19 „
Whooping Cough	45	0.27	Increase 0.04 „
Diphtheria	23	0.14	Decrease 0.06 „
Diabetes	19	0.11	Increase 0.04 „
Scarlet Fever	14	0.08	Decrease 0.02 „
Influenza	12	0.07	„ 0.03 „
Typhoid Fever	11	0.06	„ 0.03 „
Puerperal Fever	5	0.03	„ 0.06 „

* “ Diseases of the Digestive System ” includes Diseases of the Pharynx, Oesophagus, Stomach, Intestines, and Liver, and also Peritonitis.

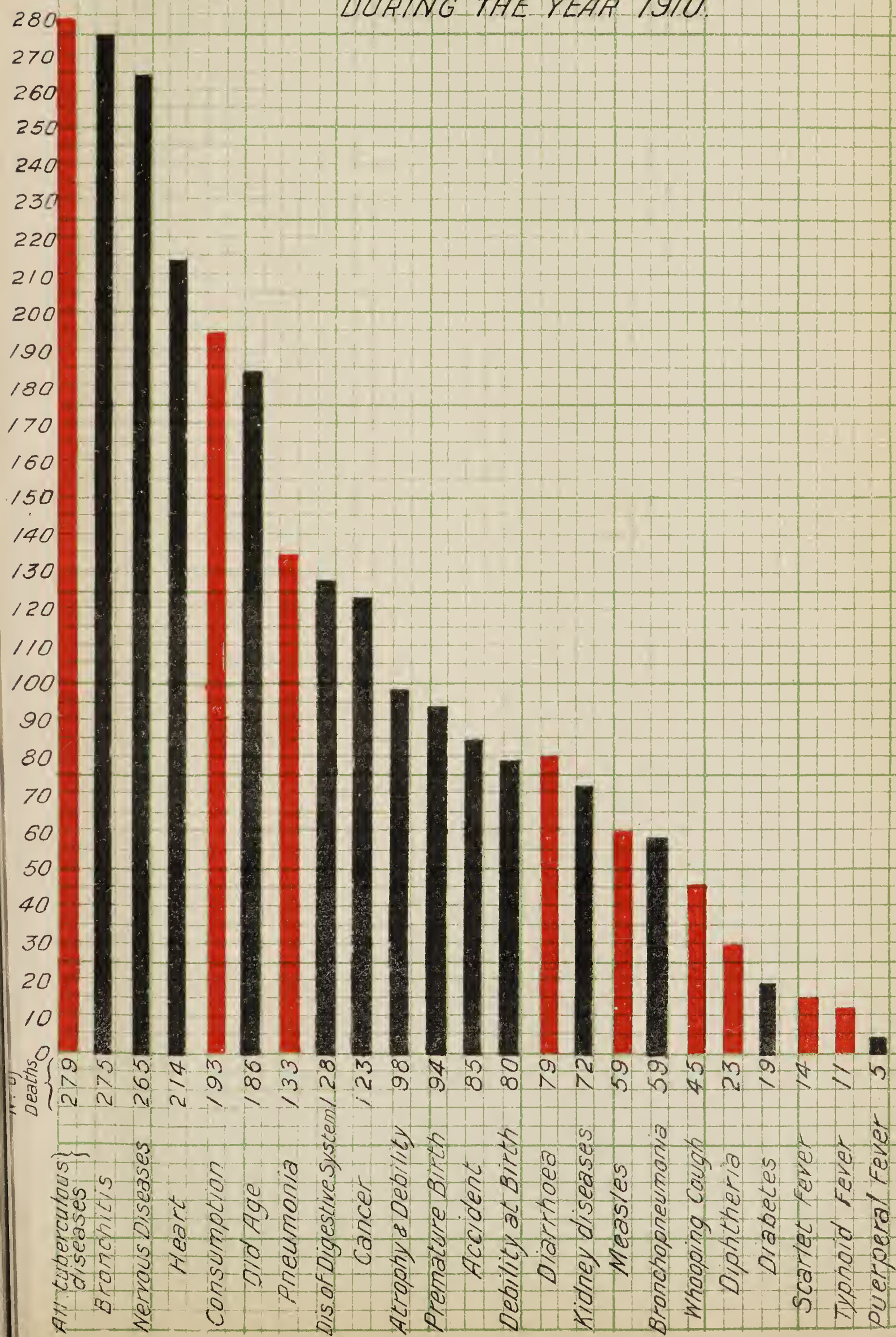
* “ Nervous Diseases ” includes Convulsions, Meningitis (not Tubercular Meningitis), Encephalitis, Apoplexy, Softening of the Brain, Hemiplegia, General Paralysis of the Insane, other forms of insanity, Chorea, Cerebral Tumour, Epilepsy, Laryngismus Stridulus, Locomotor Ataxy, Paraplegia, and other ill-defined diseases of the Brain and Nervous system.

It is satisfactory to note that the Death-rate from all tuberculous diseases is decreasing, a steady fall in the curve having taken place commencing with the year 1905. This is shown on Chart 3, page 15. The Chart also shows a fall in the mortality-rate due to Consumption, for the years 1906 to 1909; in 1910, however, there is a slight rise, which I hope will not be maintained.

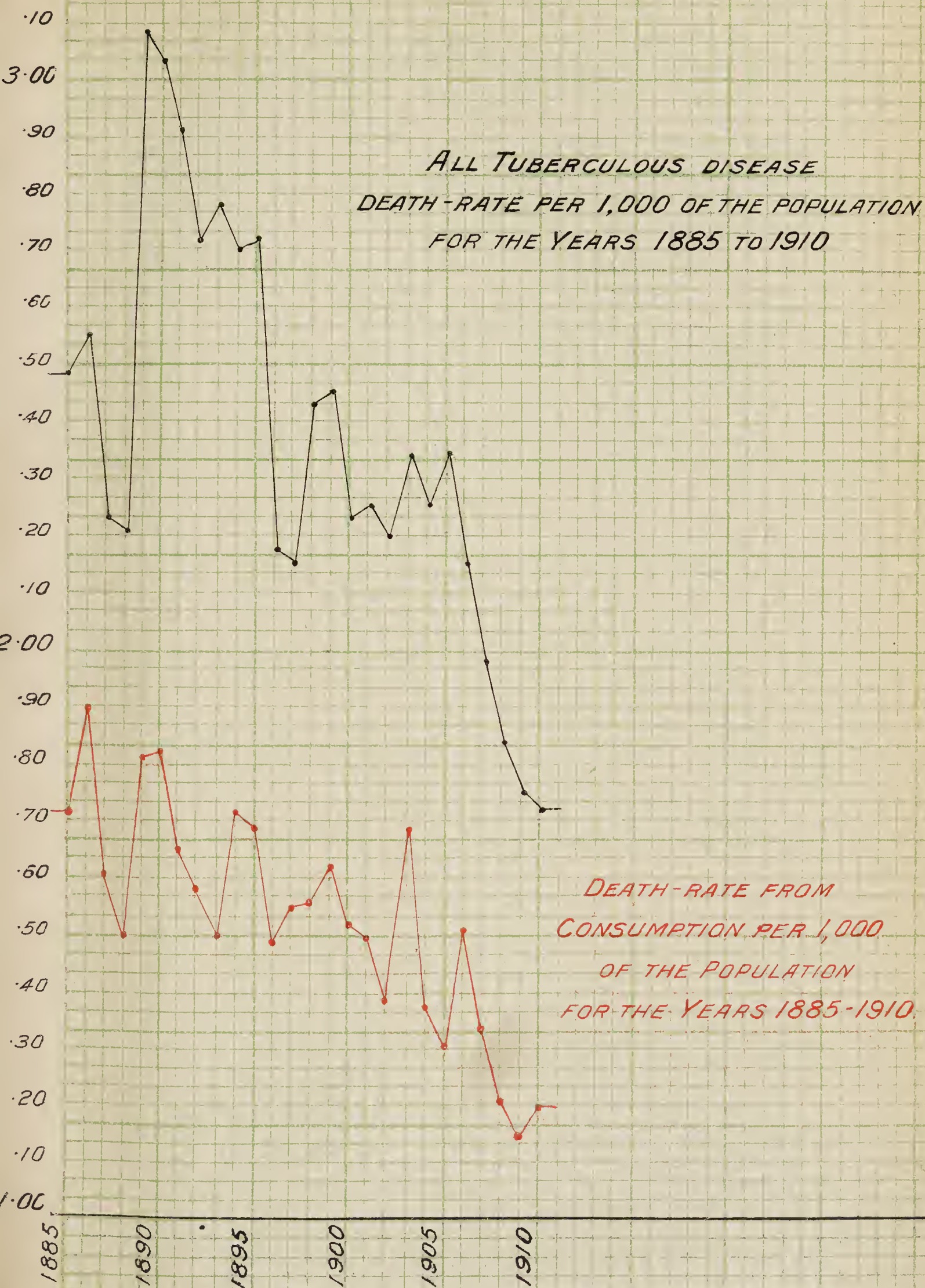
It is a matter for grave contemplation that the deaths due to Tuberculous diseases heads the list (See Chart 2, page 13).

The Death-rate for Bronchitis is lower than it has been since 1897, and the Death-rate for all Respiratory diseases (except Consumption) is the lowest since 1882, as is shown in Chart 4, page 17.

COMPARATIVE VIEW, DRAWN TO SCALE
OF THE PRINCIPAL CAUSES OF DEATH
DURING THE YEAR 1910.

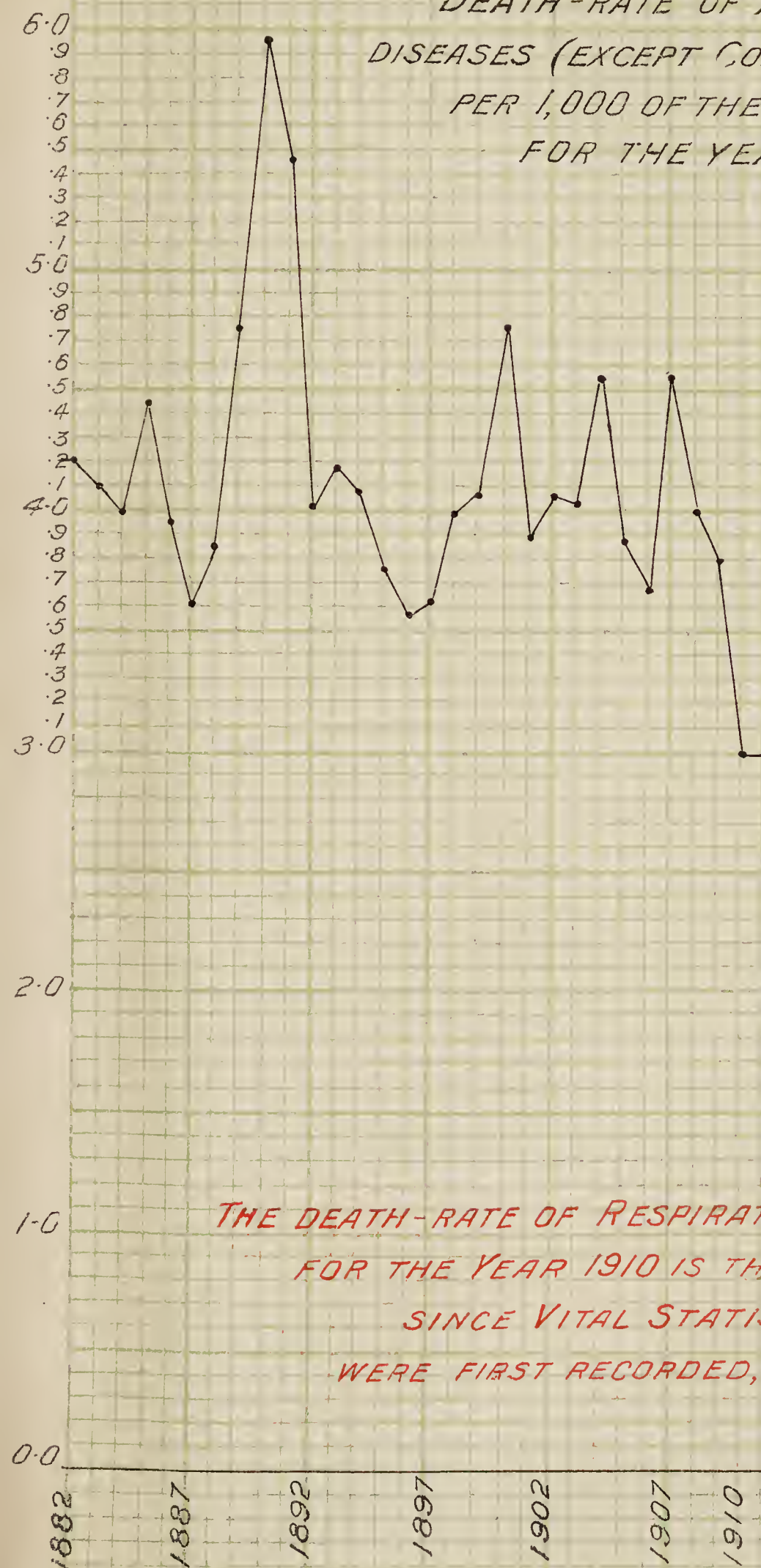


Rate per 1000



No. per 1,000

DEATH-RATE OF ALL RESPIRATORY
DISEASES (EXCEPT CONSUMPTION & CROUP)
PER 1,000 OF THE POPULATION.
FOR THE YEARS 1882-1910.



THE DEATH-RATE OF RESPIRATORY DISEASES
FOR THE YEAR 1910 IS THE LOWEST
SINCE VITAL STATISTICS
WERE FIRST RECORDED, IN 1871.

INFECTIOUS DISEASES.

TABLE F.

Showing the number of NOTIFICATIONS of Infectious Diseases.

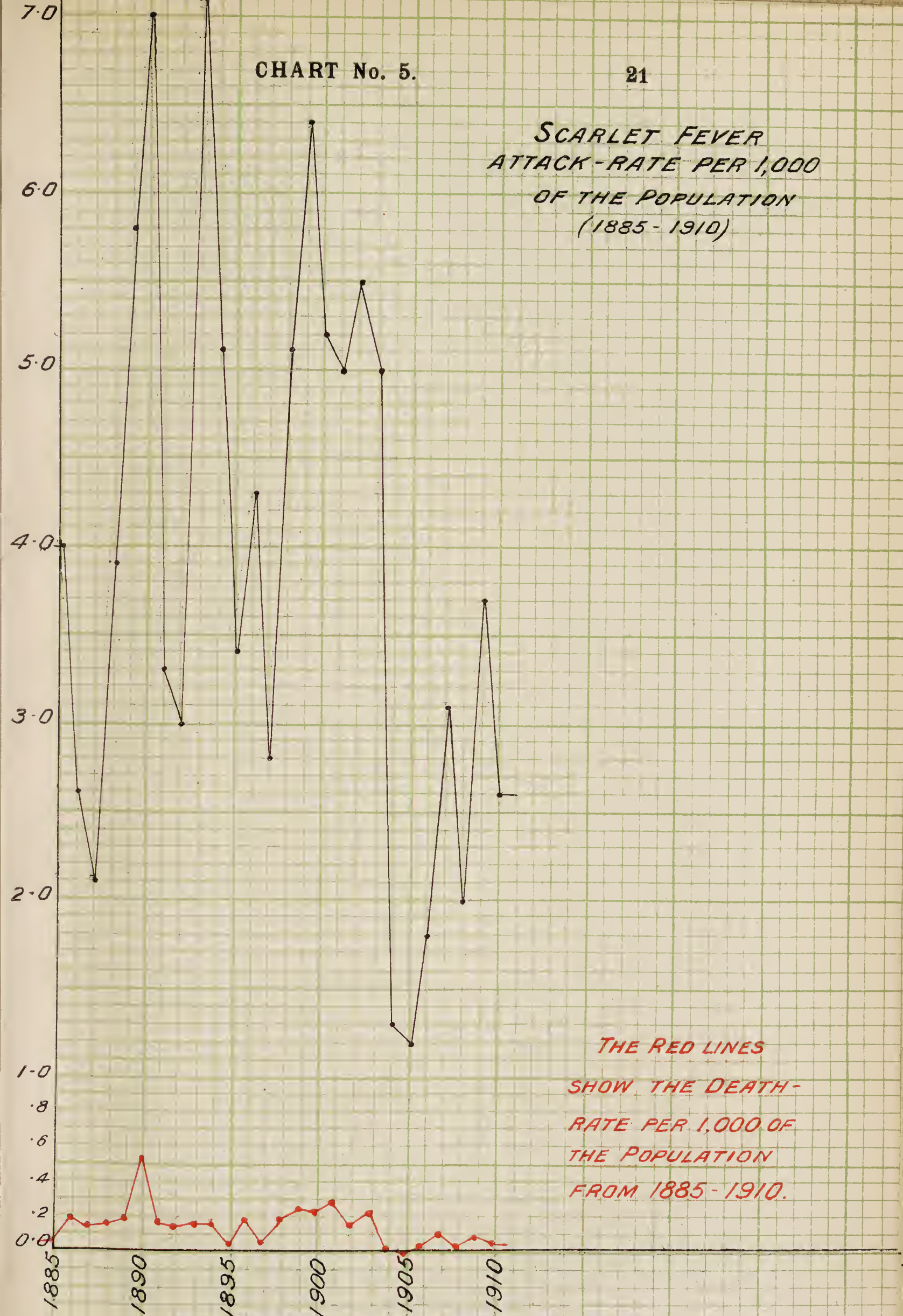
YEAR.	Smallpox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Erysipelas.
1901	...	744	76	244	...	22	98
1902	9	814	63	211	...	19	111
1903	32	758	94	121	...	14	125
1904	34	198	74	128	...	9	117
1905	2	184	170	139	...	6	105
1906	...	283	231	134	...	7	106
1907	1	498	206	92	...	6	96
1908	1	325	189	132	...	1	95
1909	...	596	229	96	...	2	135
1910	...	432	161	58	...	2	163
Average	8	483	149	135	...	9	115

TABLE G.

Table G gives the DEATHS from Infectious Diseases during the last 10 years.

Year.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Enteric Fever.	Typhus Fever.	Continued Fever.	Diarrhoea.
1901	...	64	45	29	104	43	...	2	254
1902	1	82	25	14	48	40	...	...	69
1903	2	121	36	31	48	22	...	...	93
1904	2	59	3	27	64	33	...	...	163
1905	...	102	1	30	58	31	...	...	122
1906	...	15	5	36	56	20	...	...	174
1907	...	104	19	42	42	9	...	...	65
1908	...	23	5	28	120	16	...	...	93
1909	...	166	16	32	38	14	...	...	53
1910	...	60	13	23	43	11	...	...	77

*SCARLET FEVER
ATTACK-RATE PER 1,000
OF THE POPULATION
(1885-1910)*



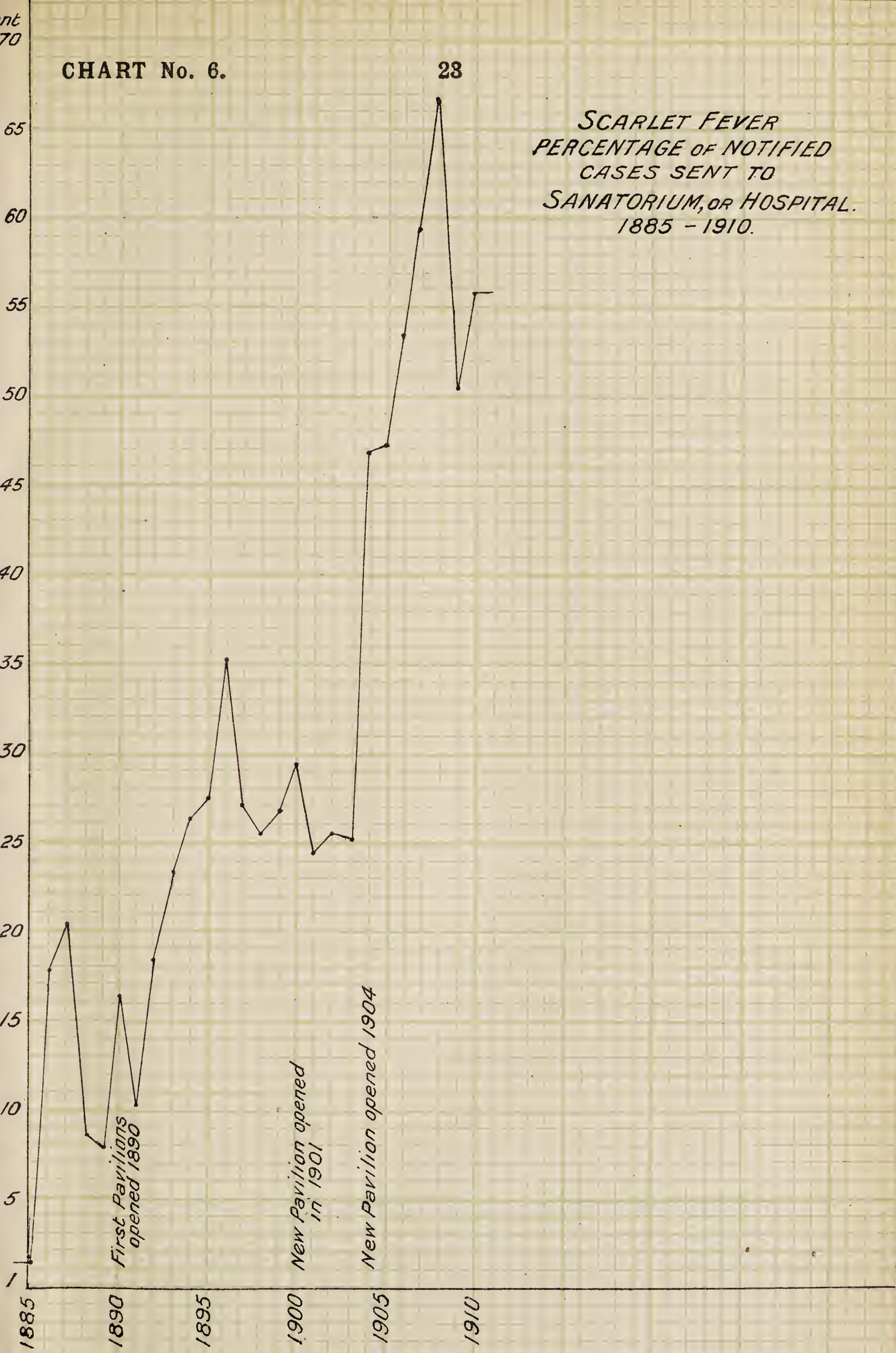
*THE RED LINES
SHOW THE DEATH-
RATE PER 1,000 OF
THE POPULATION
FROM 1885-1910.*

nt
70

CHART No. 6.

SCARLET FEVER
PERCENTAGE OF NOTIFIED
CASES SENT TO
SANATORIUM, OR HOSPITAL.
1885 - 1910.

23



1. The first part of the paper is devoted to a general discussion of the problem of the origin of life. It is shown that the problem is one of the most important and most difficult in the history of science. The author discusses the various theories of the origin of life, and shows that the most plausible is the theory of spontaneous generation. This theory is based on the fact that the conditions of the early earth were such that the formation of organic molecules was a natural consequence of the physical and chemical processes going on at the time.

SCARLET FEVER.

The following Table shows the number of cases of Scarlet Fever notified during the last ten years, the attack-rate, the fatality per cent. of cases, and the death-rate per 1,000 of the population.

YEAR.	No. of Cases Notified	Attack-rate per 1,000 of the population	Fatality per cent of cases.	Death-rate per 1,000 of the population .
1901	744	5.0	6.0	0.30
1902	814	5.5	3.0	0.16
1903	758*	5.0	4.7	0.24
1904	198	1.3	1.5	0.02
1905	184	1.2	0.5	0.006
1906	283	1.8	1.7	0.03
1907	498	3.2	3.8	0.12
1908	325	2.0	1.5	0.03
1909	596	3.6	2.6	0.10
1910	432	2.6	3.2	0.08

*Milk epidemic.

The number of cases of Scarlet Fever whilst fairly large, did not reach the number reported in the previous year by 164; the fatality however, was slightly greater. It will perhaps not be without interest to turn up the records of former years with respect to Scarlet Fever; in doing so, it will be found that the years 1876 to 1882 show the following number of deaths from this disease, viz. :—133, 138, 186, 243, 312, 145, and 168, respectively. The deaths for the last seven years have not exceeded 19 in any separate year, and total 62 only for this period.

In 1910 there were 13 deaths from Scarlet Fever.

On pages 21 and 23 will be found Charts showing the Attack-rate since 1885, the Death-rate, and the percentage of notified cases of Scarlet Fever sent to Hospital.

DIPHTHERIA.

There were 161 cases notified in 1910, causing 23 deaths and a consequent Death-rate of 14.3 per cent., which is 0.3 per cent. more than that for the previous year. The Death-rate per 1,000 of the population was 0.14. The Death-rate from this Disease in the 76 large towns varies from 0.02 to 0.33 per 1,000 of the population.

The following Table shows the case-mortality for the last 10 years :—

Year.	Case Mortality.
1901.....	38·1 per cent.
1902.....	22·2 „
1903.....	33·0 „
1904.....	36·4 „
1905.....	18·0 „
1906.....	11·2 „
1907.....	20·4 „
1908.....	14·8 „
1909.....	14·0 „
1910.....	14·3 „

On page 27 I have introduced a Chart showing the rapid rise in the attack-rate of Diphtheria since 1899, and the fall from the year 1906 to the year 1910. Since 1907 there has been a nearly constant fall in the death-rate, which is shown by the red lines on the Chart.

I have not the slightest doubt that the fall in the Case-mortality, which was 44 per cent. in 1900, and now is only 14·3 per cent., is entirely due to the prompt use of Antitoxin, first supplied free to Medical Practitioners by the Corporation in 1900 for patients who were unable to pay for it.

WHOOPING COUGH.

This disease, though more prevalent than in the preceding year, was not nearly so much so as in 1908, when the fatality reached 0·75 per 1,000 of the population. The number of cases varies exceedingly in different years. The Chart on page 29 shows the death-rate due to this disease, for the years 1873 to 1910. There is no doubt that the number of cases could be much diminished if parents ^{and} of those having the custody of young children would cease exposing them to infection.

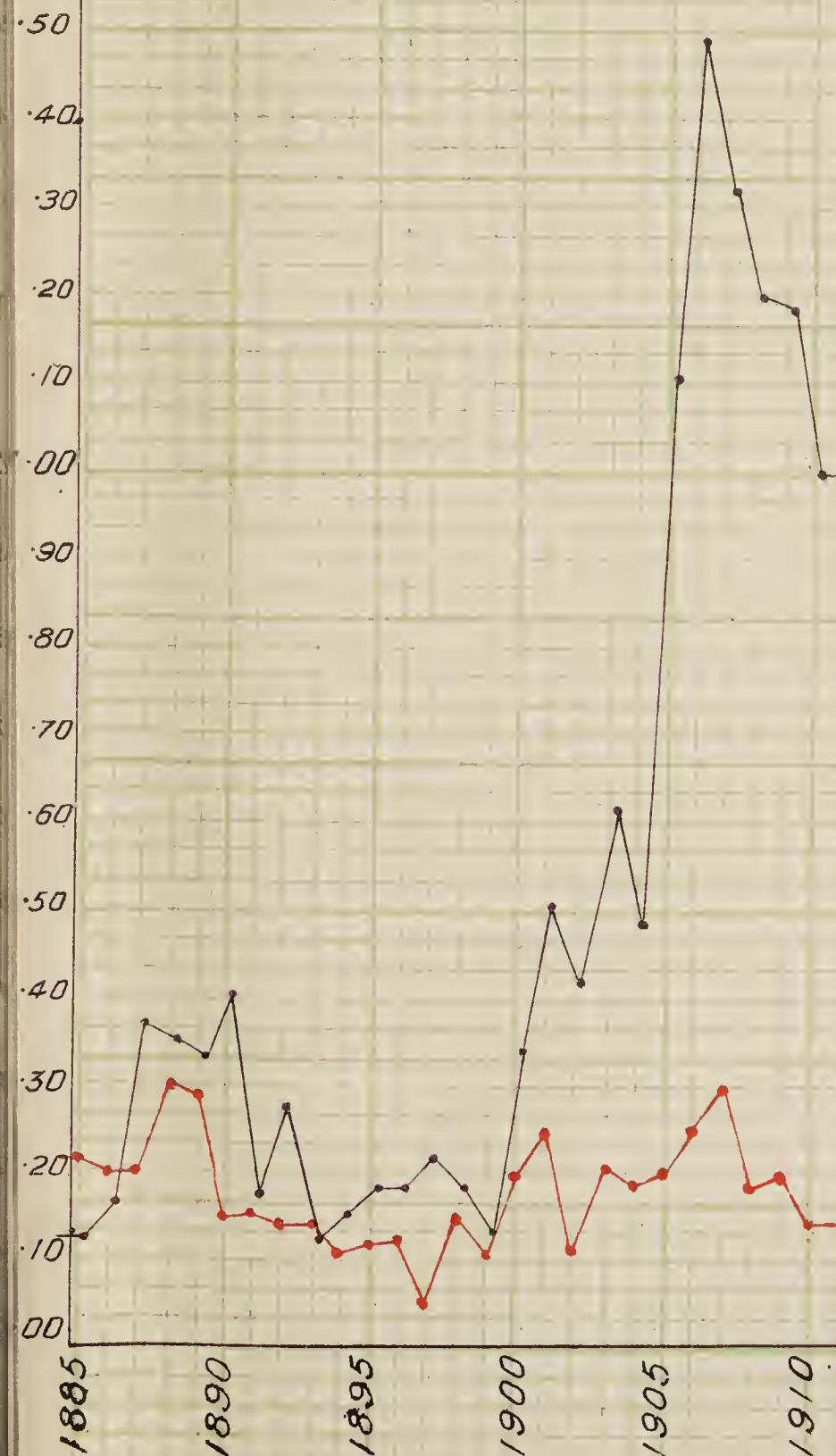
TYPHOID AND CONTINUED FEVER.

If there is one thing more than another on which the Health Committee are to be congratulated, it is the diminution in the number of cases of Typhoid Fever and Continued Fever. In 1910 there were only 60 cases notified—ten years ago there were 266 cases notified.

DIPHTHERIA }
& MEMBRANOUS CROUP }

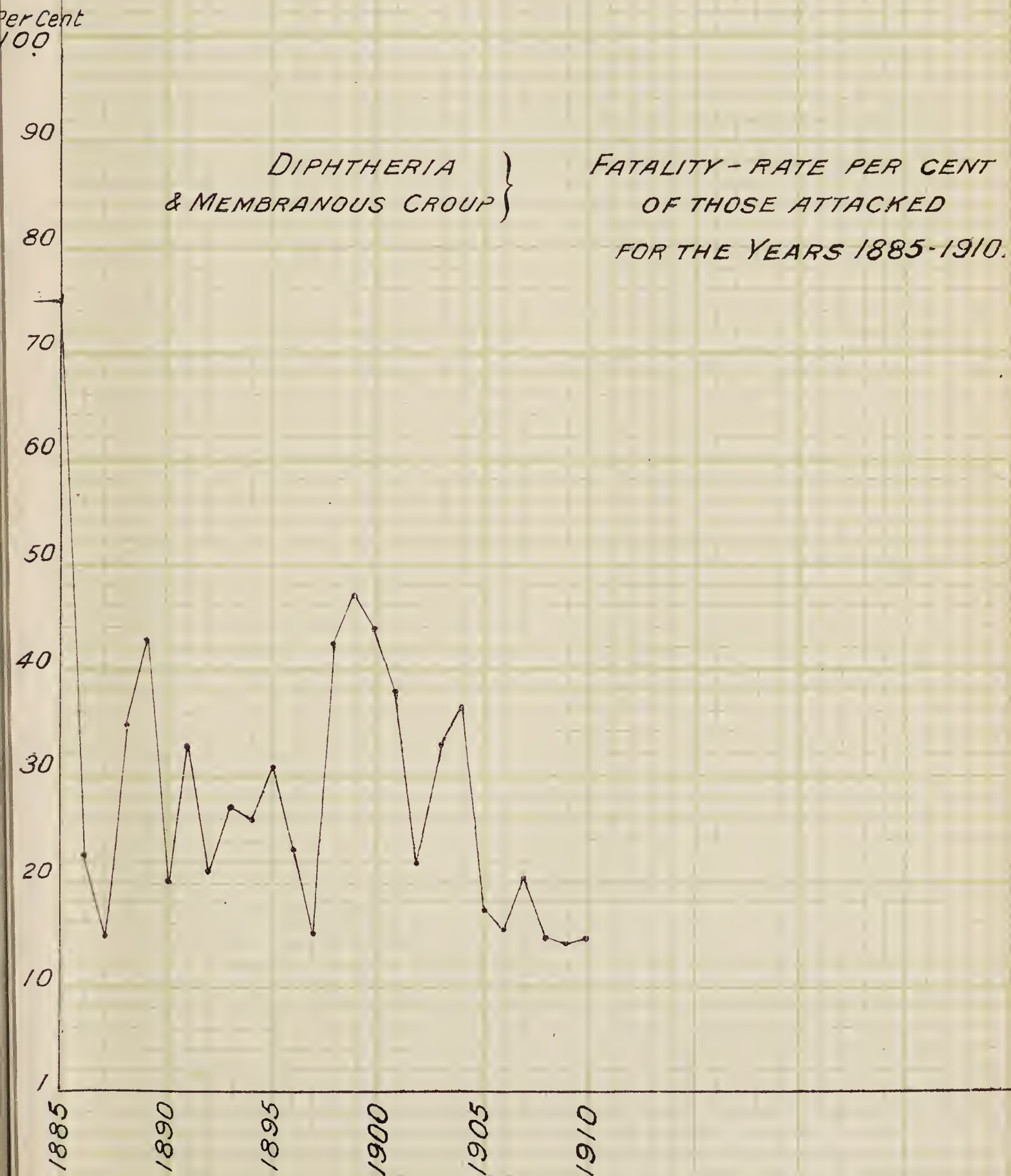
ATTACK-RATE PER 1,000
 OF THE POPULATION
 (YEARS 1885-1910)

Rate per 1000
 Number



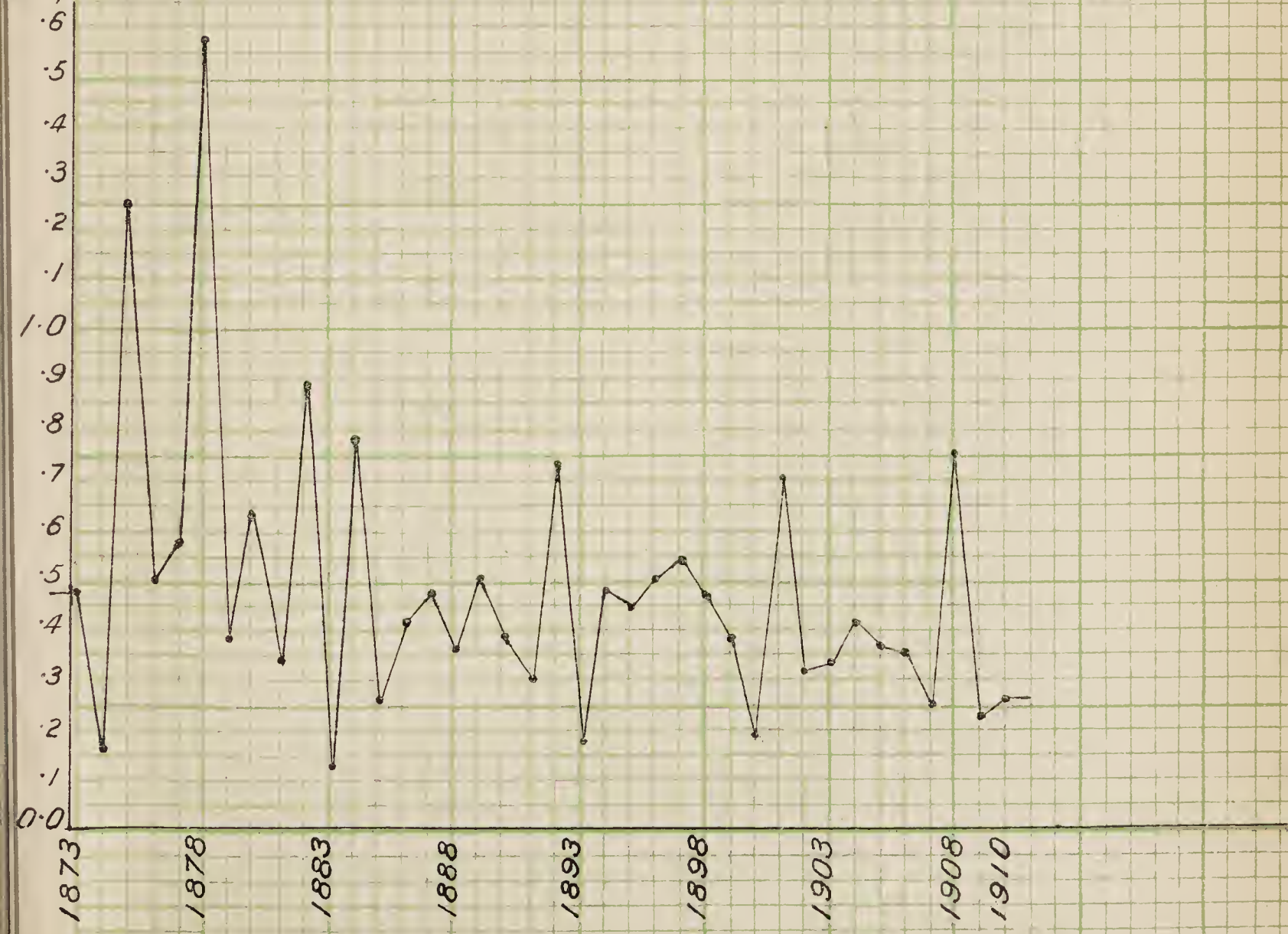
THE RED LINES SHOW
 THE DEATH-RATE PER
 1,000 FROM DIPHTHERIA
 AND MEMBRANOUS CROUP
 FOR THE YEARS
 1885 - 1910.

BACTERIOLOGICAL EXAMINATION FOR DIPHTHERIA COMMENCED, FEB. 1899
 ANTITOXIN SUPPLIED TO MEDICAL PRACTITIONERS SEPT. 1900.



DEATH-RATE OF WHOOPING-COUGH
PER 1,000 OF THE POPULATION
FOR THE YEARS 1873 - 1910.

Number per 1,000





The death-rate from this disease in 1910 was only 0.06 per 1,000 of the population, being the lowest on record. The attack-rate and death-rate for the years 1886 to 1910 are shown on Charts 9 and 10, pages 33 and 35. These Charts show an almost unbroken fall in the attack-rate, while that of the death-rate is most gratifying.

The case-mortality was 18.9 per cent.

The following Table gives the number of cases of Enteric and Continued Fever notified at different age-periods.

MALES.							
0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65
....	6	11	8	3	3	2	1
FEMALES.							
0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65
....	1	9	8	7	1	....	....

3 cases were notified in January.

1 case was ,, February.

3 cases were ,, March.

3 ,, ,, April

1 case was ,, May.

6 cases were ,, June.

4 ,, ,, July.

6 ,, ,, August.

18 ,, ,, September.

5 ,, ,, October.

4 ,, ,, November

6 ,, ,, December.

The following were the occupations of those notified. :—

Under School Age.....	4	Miner.....	2
No Occupation.....	6	Assistant in Fish Shop	1
Caulker	1	Domestic Service	1
Forgeman	1	Milliner	1
Plater	2	Sawyer	1
Rivetter	1	Screeners at Colliery	1
Housewife	6	Labourer.....	5
Sea-going Engineer	1	At School	24
Ropeworker	2	Total	60

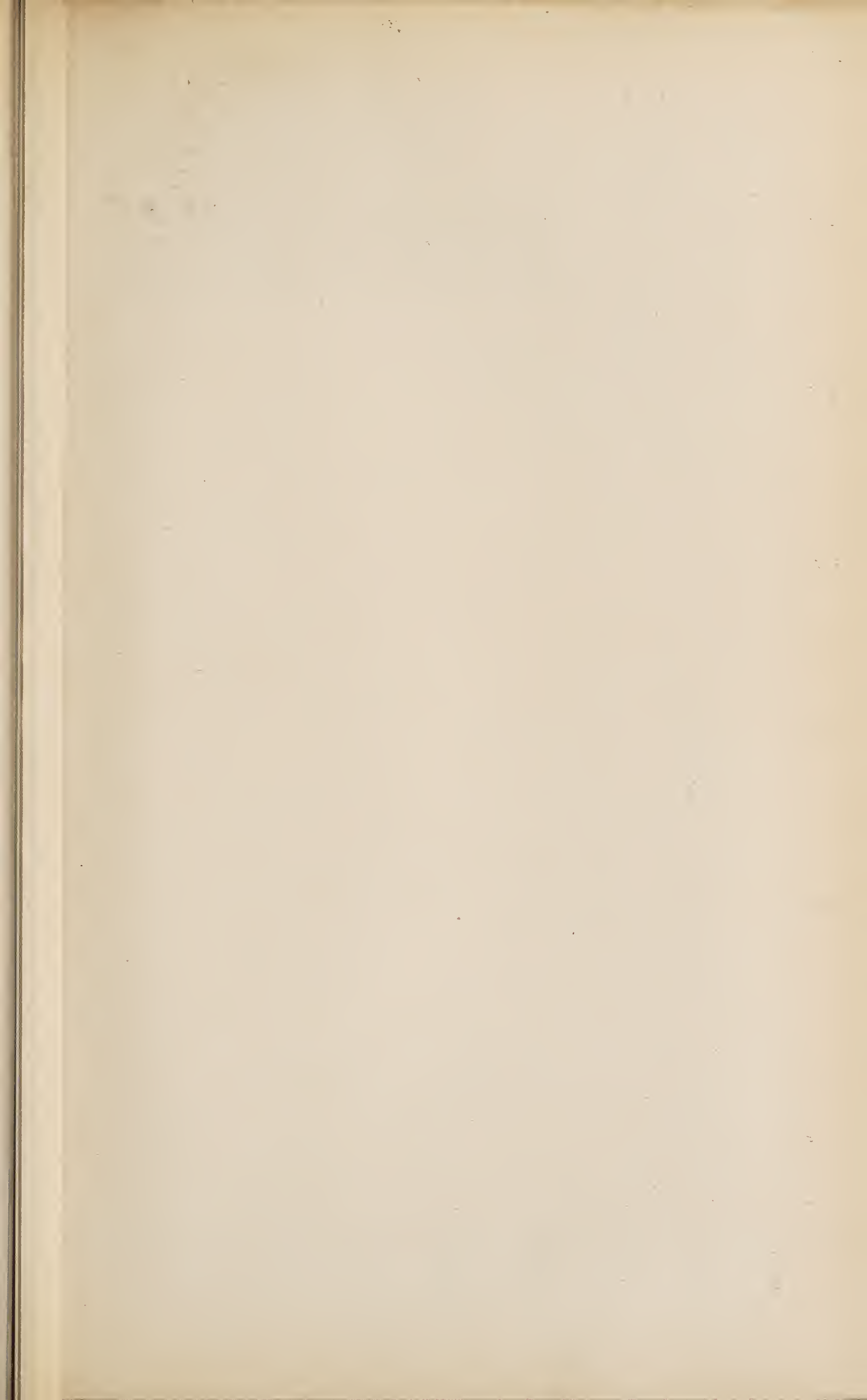
Six Schools had two cases each, in the remainder of the Schools affected, there was only one case in each.

The Milk supply did not appear to be involved ; in 16 cases, Condensed Milk had been used ; the remainder were supplied by 28 different Dairies.

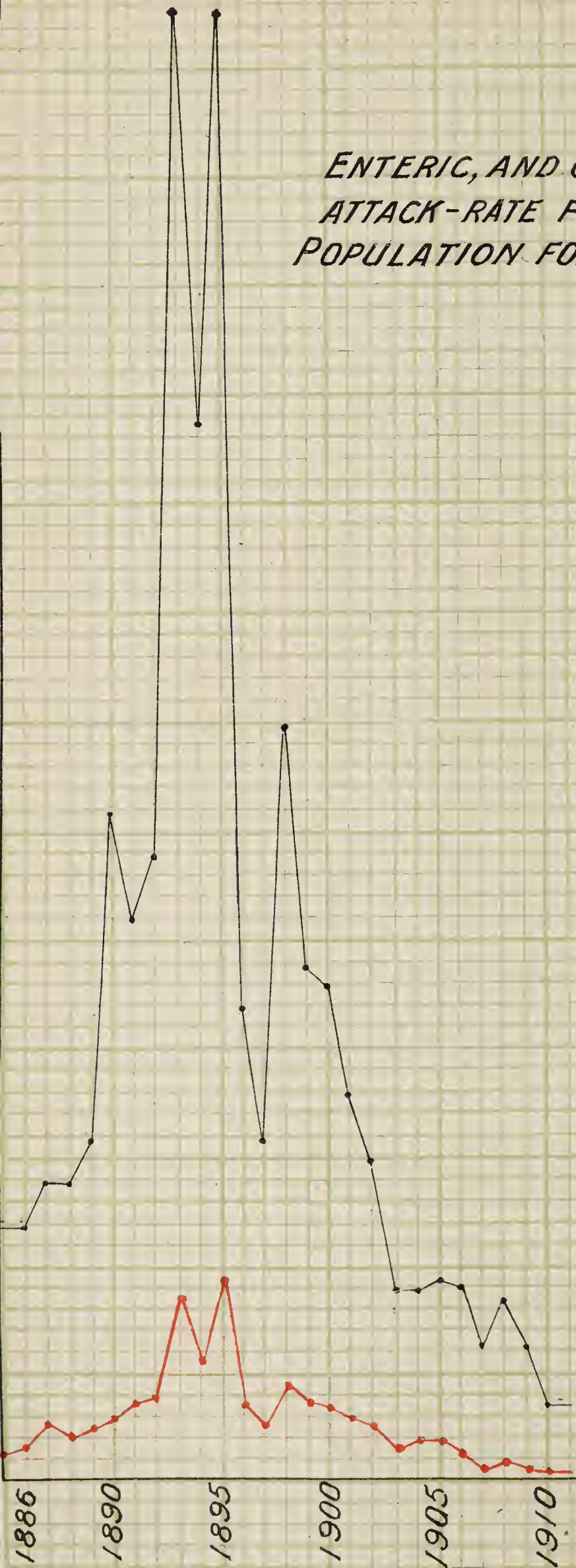
57 Cases were treated at the Borough Sanatorium, and 3 at home.

On extended observation of the 57 cases treated at the Borough Sanatorium, it was found that 17 of these were not suffering from Typhoid Fever but from some disease simulating it. Thus there were only 40 cases, making with the 3 home-treated cases, a total of 43 for the Borough during the year.

Typhoid Fever is often difficult to diagnose from certain other diseases, and therefore every infectious diseases hospital receives a large percentage of cases which turn out not to be Typhoid. It is better, in my opinion, that these suspicious cases should be sent to our Sanatorium rather than that they should eventually prove to be Typhoid and probably be the cause of further cases in the Borough. The source of the infection is nearly always difficult to obtain for various reasons ; some patients do not give very clear answers to queries as to the source apparently from a vague fear of blame being attached to themselves, which of course is absurd ; others do not remember any possibility of infection, and this is not to be wondered at when one recollects that the incubation



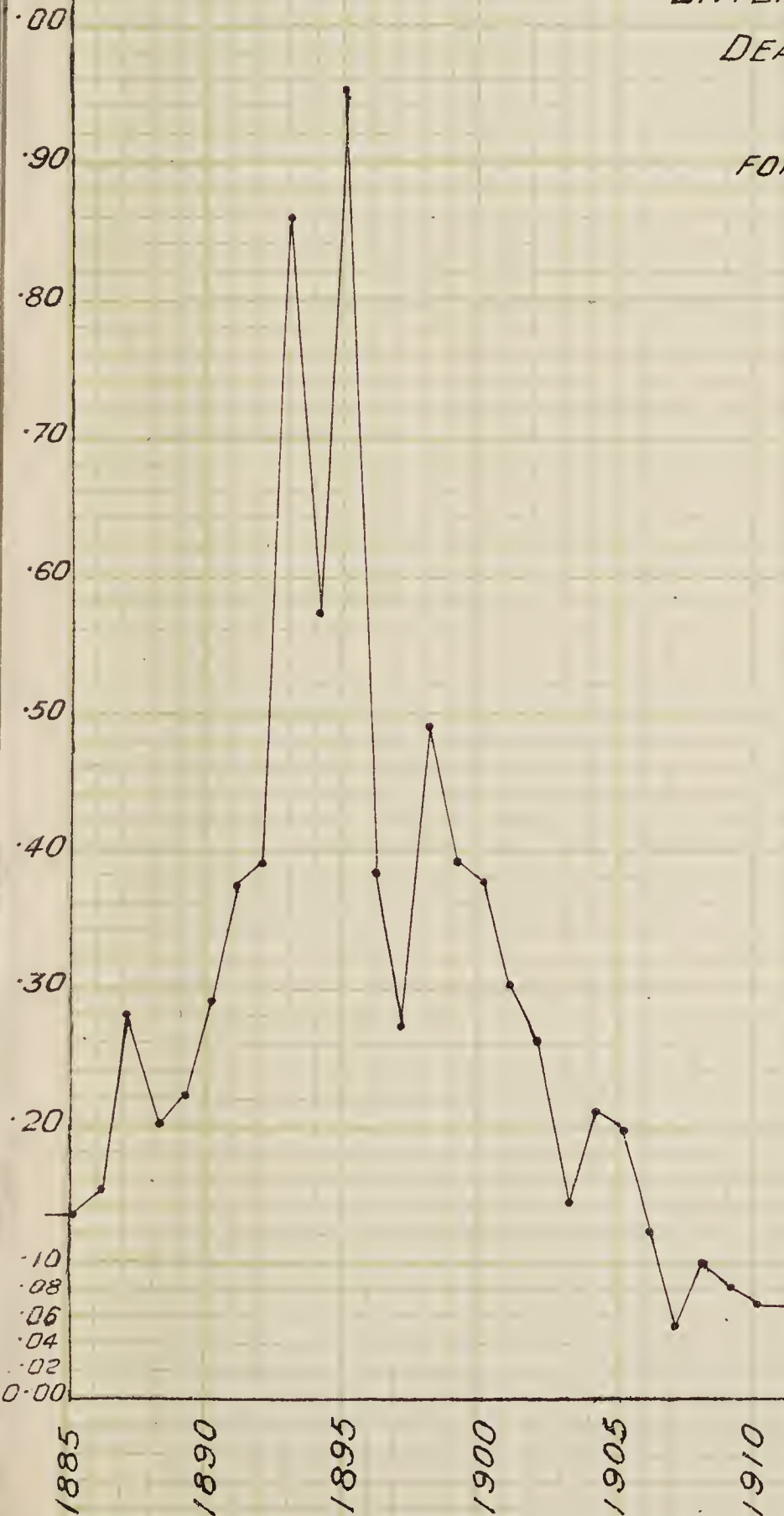
*ENTERIC, AND CONTINUED FEVER
ATTACK-RATE PER 1,000 OF THE
POPULATION FOR THE YEARS 1886-1910.*



*THE RED LINES SHOW
THE DEATH-RATE FROM
ENTERIC & CONTINUED
FEVER, PER 1,000 OF THE
POPULATION FOR THE
YEARS 1885 - 1910.**

** THIS IS SHOWN ON A
LARGER SCALE IN CHART.*

ENTERIC, AND CONTINUED FEVER
DEATH-RATE PER 1,000 OF
THE POPULATION
FOR THE YEARS 1885-1910.



period extends to about three weeks. In the cases notified, as suffering from Typhoid Fever during the year 1910, two had eaten Mussels within a period corresponding to the length of the incubation; in two cases there had been a previous one in the same tenement shortly before; in one case there had been Typhoid Fever in the same tenement in the previous year, and the possibility of a "carrier" was involved; one had picked rags from ash-pit refuse; in two cases there had been cases of Diarrhoea in the same tenement a few weeks previously, and it is quite possible that these were unrecognised cases of Typhoid; in another case the patient had been handling pit-props coated with river slime; in another case the infection was probably got whilst visiting a friend suffering from the disease, and in another the patient, who was a sea-going Engineer, probably contracted the disease abroad.

Method of excrement disposal for each tenement affected :--

50 by Water Carriage.
10 Conservancy System.

The number of midden-privies, ash-closets, and pan-closets converted into W.C's. during the year was 365.

The Scavenging of receptacles on the Conservancy System is undertaken by the Cleansing Department of the Corporation and is efficiently performed.

It is impossible to give the sources of Shell-fish consumed in the Borough. There are no recognized Vendors, but people gather various shell-fish indiscriminately for their own consumption, from the rocks on the foreshore, the jetties, and from near the sewer outfalls. I have found the sea-water polluted with *Bacillus Coli* at Roker, at Sea Lane, and at Whitburn, and I consider that it is probable that there may be occasionally Typhoid Bacilli also in the water.

DR. WHEATON'S REPORT ON TYPHOID FEVER IN THE COUNTY OF DURHAM.

On August 4th, 1910, the Medical Officer of Health read a resumé of the above report to the Health Committee, so far as it affected the Borough of Sunderland.

He pointed out that owing to the action of the Health Committee in securing the abolition of so many privy-middens in the

Borough, the attack-rate of Typhoid Fever had considerably fallen, as evidenced by the following Table :—

Year.	Attack-rate of Typhoid Fever per 1000 of the Population.
1900.....	2.08
1901.....	1.65
1902.....	1.42
1903.....	0.81
1904.....	0.84
1905.....	0.91
1906.....	0.87
1907.....	0.59
1908.....	0.79
1909.....	0.60

Dr. Wheaton's figures only included the year 1908. It was to be observed, however, that the attack-rate was still further reduced in 1909 to 0.6 per thousand. (*In 1910 the attack-rate was again reduced to the low figure of 0.37 per thousand*).

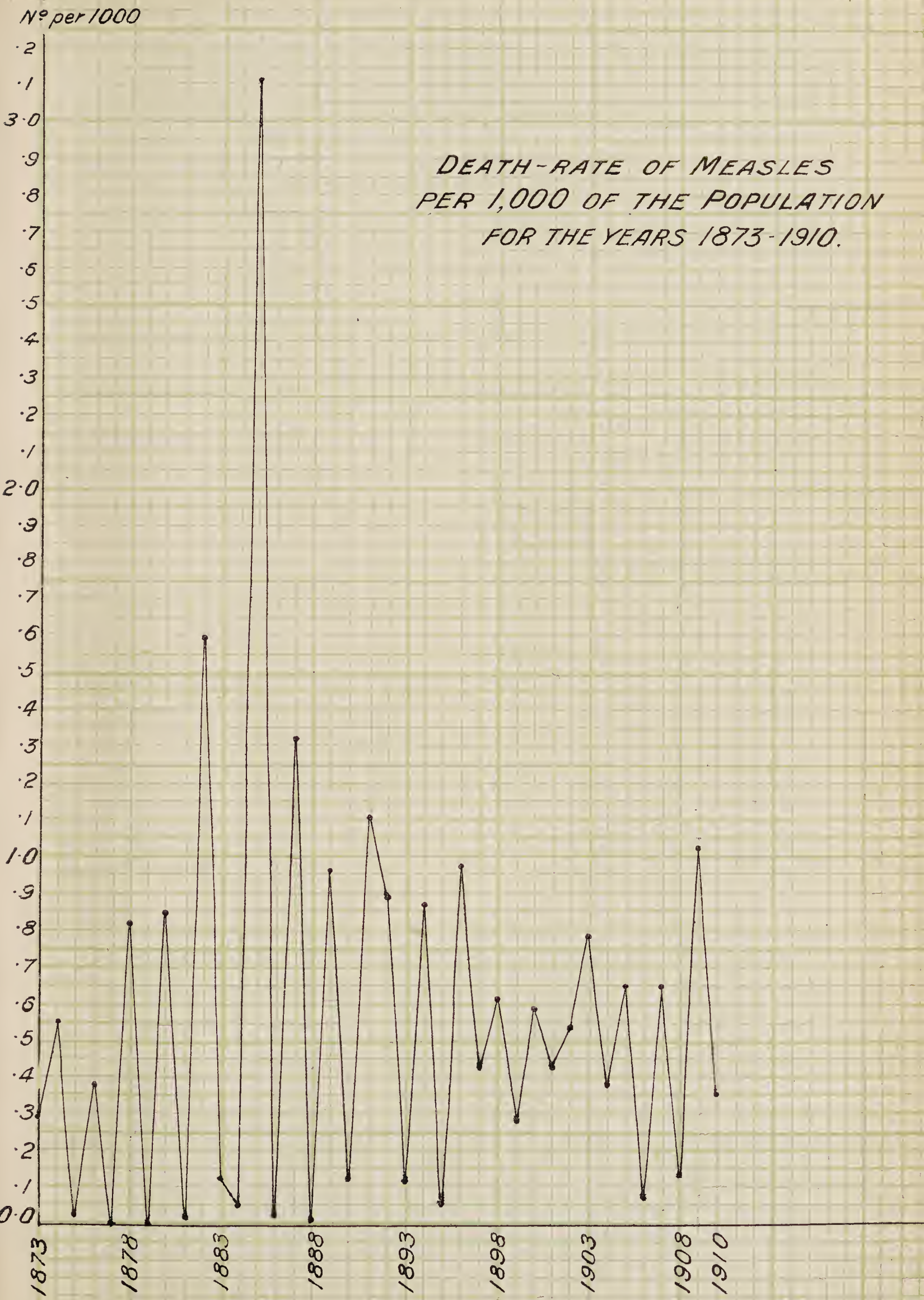
Dr. Wheaton requested that, in order to extend his enquiry, a number of records in relation to Typhoid Fever should be kept. The Committee were informed of these, and the Medical Officer of Health reported that it had always been customary to keep such records in his office.

MEASLES.

There were 701 cases of Measles notified under the Sunderland Corporation Act, 1907, by School Teachers. This number does not represent by any means the total number of cases during the year, as Measles is not a notifiable disease under the Infectious Disease (Notification) Acts, but it is an index to the prevalence of the disease in the Borough. The death-rate per 1,000 of the population due to Measles in 1910 was only 0.36, as against 1.04 in 1909, when we had only 631 cases notified from the Schools. The Chart, No. 11 on page 39, shows the death-rate of Measles per 1,000 of the population for the years 1873 to 1910.

SCHOOL AND CLASS CLOSURE.

Ever since the receipt of the Memorandum by the Local Government Board with respect to class-closure (dated January, 1908, this procedure has been tried wherever possible. In some cases, class-closure failed to cut short the invasion of the School by Measles, because it was found that the first case had not been notified. It is always a difficult matter to be certain that one has got the first case, and it is often found that two or more cases have arisen previously without the fact being known. There is also



the risk of infection to member of other classes where several classes meet in the playground at the same time. In several instances this was no doubt the cause of the whole Department being affected, and in such cases it was found necessary to advise closure for three weeks. The following Table shows the different Schools affected together with the method of closure adopted :—

NAME OF SCHOOL.	Number of cases of during the year.	Number of Classes closed for five days.	Fresh Cases after Class re-opened.	Whole Department closed for three weeks	Fresh cases after re-opening
Chester Rd. Infants	34	1	Yes.	from Nov. 9	None.
Thomas St. „	30	Impracticable on account of number of cases	...	from Mar. 1	None.
Stansfield St. „	21	5	None.	...	...
Colliery „	47	2	Yes.	from Apr. 20	None.
Hudson Rd. „	66	5	Yes.	...	...
Redby „	33	2	None, but further out-break later in year.	from Apr. 27	None.
High Barnes „	37	5	None.	...	...
Commercial Rd. „	18	3	Yes.	...	...
Green Ter. „	5	3	None.	...	...
Pallion „	33	7	Yes.	...	...
Gray, C.E. „	14	2	None.	...	...
St. Patrick's „	4	2	None.	...	...
B'wearmouth „	47	42 Cases 1 Class (Closed in Decem.)	...	from Apr. 4	None.
St. Joseph's „	21	1	None.	...	...
M'kwearmouth „	22	3	Yes.	from Sep. 14	None.
St. Benet's „	9	...	...	...	...
Jas. William St. „	39	6	Yes.	from Mar. 4	None.
Hendon „	30	...	...	from Nov. 25	6 fresh cases.
Valley Rd. „	79	6	Class V closed for 3 weeks as 15 cases at one time. No fresh cases on re-opening in any class.	from Sept. 24	None.
Garden St. Infants	7	2	None.	...	...
Diamond Hall „	35	6	Yes.	...	...
Simpson St. „	37	4	None.	...	...
Hylton Rd. „	25	6	Yes.	...	...
Hylton Rd. „	8*	...	...	from Dec. 12	None.

* The Medical Officer of Health was afterwards informed that something like half the children in the Department were absent on account of Measles ; the Department was therefore closed for three weeks,

It will be seen from the above Table that Class closure failed to cut short the outbreak of Measles in 10 Infants' Departments out of 23 which were attacked.

Of the ten Departments where total closure was adopted for three weeks, there was only one in which Measles appeared after re-opening, and in that one only to the extent of six cases.

After experience of the two methods my own impression is, that if total closure were adopted as soon as the invasion began, the outbreak might be cut short at once.

INFECTIOUS DISEASES IN SCHOOLS.

Your Medical Officer of Health has prepared a pamphlet, setting forth the leading signs and symptoms of the principal infectious diseases commonly found amongst children, for the use of the teachers in the Council's Schools. This has been done to meet a want often expressed to him by members of the Scholastic Profession. The book was submitted to the Schools' Medical Officer and the Education Committee, and approved by them. Every teacher has received a copy.

DEPUTY MEDICAL OFFICER OF HEALTH.

Dr. Vaux, who has acted in the above capacity for some years, having left the town, Dr. Hubbersty has been appointed to fill the vacancy.

SMALL-POX AND VACCINATION.

Small-pox is certainly likely to become very much more prevalent in this country as time goes on. Scattered outbreaks have been from time to time reported, and but for the vigilance and effective administration of the various Health Departments, a general epidemic would have resulted.

This cannot always go on, however. In the midst of a community where the neglect of vaccination is steadily growing year by year, there will come a time when the most efficient Sanitary Staff will fail to retard the advance of this dread disease. This state of things is being gradually, but surely, brought about by the so-called conscientious objector, who can now so easily obtain

an exemption certificate for his child. The following Table shows the number of Certificates of (Conscientious objection) Exemption :—

Year.	Number of Certificates obtained.
1900.....	49
1901.....	39
1902.....	40
1903.....	42
1904.....	32
1905.....	53
1906.....	66
1907.....	175
1908.....	372
1909.....	510
<hr/>	
Total	1,378

Thus we have an ever increasing number of persons totally unprotected against Small-pox, and a potent source of danger to the rest of the inhabitants.

DISINFECTION OF BOOKS.

A hot-air Steriliser has been placed in the Disinfecting Station at the Borough Sanatorium for the disinfection of Books by dry heat.

REPORT ON CORPORATION PATIENTS SENT TO THE STANHOPE AND WOLSINGHAM SANATORIA.

Since June, 1901, 86 patients have been treated in the Stanhope and Wolsingham Sanatoria as Corporation Patients.

Of these, 55 are dead, 8 are well, 4 fairly well, 3 are ill, 14 cannot be traced, 2 were under treatment at the end of the year.

Of those who died, the average duration of life after discharge from the Sanatoria was $1\frac{3}{4}$ years.

Of the 15 still under observation :—

Two have been at work for $9\frac{1}{4}$ years.			
One has been at work for $8\frac{1}{2}$ years.			
One	„	„	$5\frac{3}{4}$ „
One	„	„	5 „
One	„	„	$4\frac{1}{4}$ „
One	„	„	$3\frac{1}{4}$ „
One	„	„	3 „
One	„	„	$2\frac{1}{2}$ „
One	„	„	$1\frac{1}{2}$ year.
Two have	„	„	$1\frac{1}{2}$ „
One has	„	„	1 „

This is not a very encouraging record, but it must be borne in mind that many of the cases are not in the early stage when admitted, and therefore at the most, one can only hope for arrest of the disease for a few years. But even this is worth while, for it means that the worker is able to maintain himself and family for a much longer time than he would otherwise have been able to do.

It is found that those who are lost sight of are generally the best cases on discharge, some going abroad or removing their homes to other places, and it is probable that the majority are still at work.

The early cases, those in which the disease has just commenced, do exceedingly well, and from 30 to 40 per cent. at least, are alive and working after seven years.

TUBERCULOSIS DISPENSARY.

What is required is some means of getting into touch with the early cases which occur amongst poor people who are unable to afford to pay a doctor and unwilling to apply to the Relieving Officer for an order to see the Poor Law Medical Officer. This want has been supplied in several towns by the establishment of a Tuberculosis Dispensary. To this Institution people come to be medically examined for the presence of Consumption, and if this is found, appropriate treatment is advised; the early cases being sent to Sanatoria, the later cases to Hospitals for Isolation and Educational methods, and those in the last stage, to Homes for the Dying. At the Tuberculosis Dispensary, treatment by tuberculin can be given in appropriate cases, while the patient is still able to work. Such a Dispensary is in touch with the Medical Officer of Health, the Sanatoria, Hospitals, Nursing Associations, Guild of Help, Charity Organisation Society, and every other agency which is at work for the improvement of the public health. Several towns already have such an institution.

BOROUGH SANATORIUM REPORT.

The total number of persons admitted was 299, of whom 23 died, giving a Death-rate of 7·3 per cent.

Of the 299 admitted, 242 were cases of Scarlet Fever, of which 11 died, causing a Death-rate of 4·5 per cent.

57 cases of Enteric and Continued Fevers were admitted. On further observation, 17 of these were found not to be suffering from these diseases.

The diagnoses were as follows :—

DISEASES.	Number of Cases.	Result.	
		Cured.	Died.
Pneumonia	2	2	...
Gastro-Enteritis	1	1	...
Meningitis.....	2	...	2
Meningeal Irritation (due to blow on head)	1	1	...
Gastric Catarrh	3	3	...
Puerperal Septicæmia	1	...	1
Broncho-Pneumonia	2	2	...
Influenza	3	3	...
Constipation.....	2	2	...
Totals	17	14	3

Deducting the above 17 cases, there were 40 cases of Enteric Fever, of which 8 died, representing a Death-rate of 20·0 per cent.

One case of Scarlet Fever was found to have Chicken-pox also ; recovery took place.

PORT CASES.

(Included in the above total.)

One case notified as Typhoid, and one case as Scarlet Fever were admitted to the Sanatorium from vessels in the Port.

Table I. shows the number of cases of Infectious Diseases notified during the years 1909 and 1910, together with the number admitted to the Sanatorium, and the percentage of the total cases notified so admitted.

TABLE I.

Showing the number of Cases notified and the number Admitted to the Sanatorium during 1909-10.

DISEASE.	1909.			1910;		
	Cases Notified.	Admitted to Hospital.		Cases Notified	Admitted to Hospital.	
		Number.	Percentage of Total Cases Notified.		Number.	Percentage of Total Cases Notified.
Smallpox .....	...	...	...	...	...	...
Enteric Fever	96	74	77·1	59	55	93·2
Typhus Fever .....	...	...	...	...	...	...
Continued Fever	2	2	100·0	2	2	100·0
Scarlet Fever	596	302	50·6	432	242	56·0
Diphtheria and Memb. Croup.....)	229	...	...	161	...	...
Totals	923	378	40·9	654	299	45·7

The following figures show the Death-rate in the Sanatorium for the past ten years :—

1901—	Patients admitted	327, of whom	35 died, or	10·7 per cent.
1902—	„ „	350, „	30 „ „	8·6 „
1903—	„ „	313, „	27 „ „	8·6. „
1904—	„ „	219, „	22 „ „	10·0 „
1905—	„ „	182, „	13 „ „	7·1 „
1906—	„ „	258, „	22 „ „	8·5 „
1907—	„ „	373, „	27 „ „	7·0 „
1908—	„ „	336, „	15 „ „	4·5 „
1909—	„ „	379, „	23 „ „	6·1 „
1910—	„ „	299, „	22 „ „	7·3 „

TABLE J.

Showing the number of cases of Infectious Diseases admitted to the Sanatorium for the last ten years.

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Smallpox .....	...	10	32	34	2	...	1	1	...	...
Measles.....	...	...	...	...	...	...	1	...	1	...
Scarlet Fever	183	210	193	94	87	152	297	217	302	242
Diphtheria .....	...	...	...	...	...	...	...	...	2	...
Typhus Fever.....	...	...	...	...	...	...	...	...	...	...
Enteric and Continued Fever	144	130	88	92	95	106	73	117	74	57
Suspected Epidemic Cerebro-Spinal Meningitis	...	...	...	...	...	...	1	...	...	...
Erysipelas .....	...	...	...	...	...	...	...	1	...	...
Totals	327	350	313	219	184	258	373	336	379	299

Miss MacRae, the Matron of the Borough Sanatorium, has performed her duties with great ability, tact, and kindness, and I beg to acknowledge my indebtedness to her.

I wish to thank also the Nursing Staff for their assistance in the Wards.

BACTERIOLOGICAL REPORT.

The following is a Report of the Bacteriological examinations made by Professor Hutchens during the year 1910 :—

DRINKING WATER.

CLASS.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.	Percentages.	
						1909.	1910.
I. Containing no Bacillus Coli in 100 c.c.	28	31	24	17	100	54·7	51·8
II. B. Coli present in 100 c.c.	17	14	23	21	75	37·8	38·9
III. B. Coli present in 10 c.c.	5	2	4	5	16	6·8	8·3
IV. B. Coli present in 1 c.c. ....	...	1	...	1	2	0·7	1·0
Totals	50	48	51	44	193	...	...

On May 5th, 1910, a joint meeting of the Health Sub-Committee (deputed to consider the condition of the water supply) and of a deputation from the South Shields Trade, Commerce and Parliamentary Committee, was held at the Town Hall, Sunderland.

At that meeting, a combined report drawn up by the Medical Officer of Health of South Shields, and the Medical Officer of Health of Sunderland, on the Bacteriological condition of the drinking water supplied to the two Boroughs, was read.

The Medical Officers said that attention was first drawn to the matter in a report from Professor Hutchens, to the Sunderland Health Committee, for the year 1907. There was a Meeting of the Directors of the Water Company held on May 14th, 1908, at which a deputation from the Sunderland Health Committee attended, and the question was discussed. It was agreed that during the next six months the Water Company and the Corporations should give the matter their best attention.

From that time up to the date of the joint meeting with a deputation from South Shields (May 5th, 1910) samples of water had been taken on behalf of the Sunderland Corporation, by the Sanitary Inspectors, every week. The results are shown in the Table below :—

BACTERIOLOGICAL EXAMINATION OF SUNDERLAND AND SOUTH SHIELDS WATER SUPPLY.

Showing the number of samples examined in the years 1907, 1908 and 1909, and the results of such examination :—

YEAR	Total No. of Samples Examined.	Class I. B. Coli absent in 100 c c	Class II. B. Coli. present in 100 c c	Class III. B. Coli present in 10 c c	Class IV. B. Coli present in 1 c c
		Per cent	Per cent	Per cent	Per cent
1907	132	50·0	34·8	12·1	3·0
1908	112	56·2	29·5	10·7	3·5
1909	148	54·7	37·8	6·7	0·7
S. Shields 1909	101	70·0	18·0	12·0	1·0

The South Shields Health Committee caused the water supplied to their Borough to be examined from December, 1908 to November 1909. 101 Samples were taken and sent to Sir Rubert Boyce at the University of Liverpool for bacteriological examination. The results of Sir Rubert Boyce are shown in the above Table, the proportion of good samples being higher than in Sunderland.

Further reports of Professor Hutchens and Sir Rubert Boyce were quoted by the Medical Officers, after which the latter added, that, “considering that the water is derived from a large area in “the County of Durham, at a distance from our districts, and “taking into account the well-known fact that the limestone rock, “from which the water comes, contains many fissures, we are of “opinion that the water of each well should be examined, and “we think that the County Council of Durham should be requested “to co-operate with these Boroughs (Sunderland and South Shields) “in the study of the water supply.”

It was thereupon agreed by the joint Committee to request the County Council of Durham to co-operate with the Boroughs of Sunderland and South Shields in the study of the water supply.

The County Council of Durham agreed to such co-operation, and the question is still receiving attention.

EXAMINATION OF MILK FOR TUBERCLE BACILLI.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
Positive (T. Bacilli Present) .....	...	1	1	...	2
Negative (T. Bacilli not found)	15	19	17	22	73
Totals	15	20	18	22	75

Thus Tubercle Bacilli (germs of Consumption) were found in 2·6 per cent. of the total number of samples examined during the year. In the previous year 7·4 per cent. of the total number of samples were Tuberculous.

ACTION TAKEN UNDER SECTION 33 OF THE SUNDERLAND CORPORATION ACT, 1907, PART V., MILK SUPPLY (TUBERCULOSIS).

Two dairymen were dealt with under the above Act during the year 1910. At one farm, three cows were found with signs of a suspicious nature in the udder, pointing to tuberculosis. The farmer attended at a special meeting of the Health Committee, and stated that he was having his cows tested with tuberculin. Five which reacted, and one which was doubtful, were removed from the farm.

At the other farm, all the cows had been bought with certificates to the effect that they had not reacted to the tuberculin test, with the exception of three. Induration of the udder was found by the Corporation Veterinary Surgeon in one of the cows, which had previously passed the tuberculin test.

An offer was made by the Corporation Veterinary Surgeon to re-test this cow, but it was not accepted. The Corporation gave notice to the farmer to attend a special meeting to show cause why an order should not be made on him to cease to supply milk from his dairy, or from any specified cow or cows therein, to the inhabitants of the Borough of Sunderland. The farmer did not appear, and the Corporation made an order, requiring him not to supply within the Borough, any milk from the cow with the induration of the udder, nor from the three untested cows. The suspicious cow was afterwards re-tested by the farmer's Veterinary Surgeon, with a negative result. The Corporation thereupon withdrew the order with respect to this cow. The farmer appealed to the Board of Agriculture and Fisheries against the Order made by the Corporation, and the Board appointed Colquhoun Dill, Esq., Barrister-at-Law, to hear the appeal at the Town Hall, Sunderland.

Subsequently the Board of Agriculture and Fisheries decided to uphold the Appeal with costs.

EXAMINATION OF SWABS FOR DIPHTHERIA.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
Diphtheria Bacilli found .	48	36	26	30	140
Diphtheria Bacilli not found.....	135	98	89	73	395
Totals	183	134	115	103	535

The swabs are taken by Medical practitioners from suspected cases of Diphtheria, and from the throats of persons who have been in contact with persons suffering from this disease, who may be "carriers."

A swab is also taken from the throat of every case of Scarlet Fever admitted to the Borough Sanatorium to exclude "carriers" of Diphtheria from the Scarlet Wards. The latter practice was commenced several years ago when the Scarlet Wards were invaded by Diphtheria owing to a patient who was suffering from Scarlet Fever and who also was also a "carrier" of Diphtheria being admitted. 37 "carrier" cases were thus discovered, and isolated, during the year.

The result is that there has not been a single case of Diphtheria in the Scarlet Wards since.

EXAMINATION OF BLOOD FROM PATIENTS SUS-
PECTED TO BE SUFFERING FROM ENTERIC
FEVER (GRUBER-WIDAL REACTION).

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
Positive.....	3	5	20	11	39
Negative	11	15	18	4	48
Totals	14	20	38	15	87

I have found this test a very useful aid to the diagnosis of Enteric Fever. During the last five years it has been used for every patient admitted to the Enteric Wards, and I have found that in 95 per cent. of the cases diagnosed as Enteric the Gruber-Widal Reaction was positive.

EXAMINATION OF SPUTUM IN SUSPECTED
CONSUMPTION.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
Tubercle Bacilli present .	11	12	14	11	48
Tubercle Bacilli not found	38	30	32	23	123
Totals	49	42	46	34	171

ANALYSIS OF THE DRINKING WATER.

On the 23rd March, 1910, Samples of Water were obtained from the Fulwell and Humbledon Hill Water Works and submitted to the Borough Analysts for chemical analysis. Their Reports are as follows'—

	FULWELL	HUMBLEDON
Total solid matters in Solution, dried at 212° F	33·600	38·920 grains per gallon
Chlorine existing as chlorides.....	2·803	3·653 „ „
Ammonia.....	0·002	0·002 „ „
Albuminoid Ammonia	0·002	0·002 „ „
Lead and other poisonous metals	None	None
Hardness before Boiling	24·4	30·6 Degrees
Hardness after boiling 1 hour	8·6	13·4 „

The results of these analyses are very similar, as far as organic matters contained in the waters are concerned, to those yielded by the sample which we analysed for you last June, and by other samples of the Sunderland and South Shields Company's Supply which we have analysed of late years. In this respect the samples are quite suitable for drinking. The "Fulwell" sample is, in respect of the amount of dissolved solids, and of the degree of hardness, about the average of the Company's supply, but the "Humbledon" sample is much harder. The difference between the two is apparently due to sulphates, which cause "permanent" hardness, for the hardness both before and that after boiling are both higher in the Humbledon than in the Fulwell sample by about the same amount.

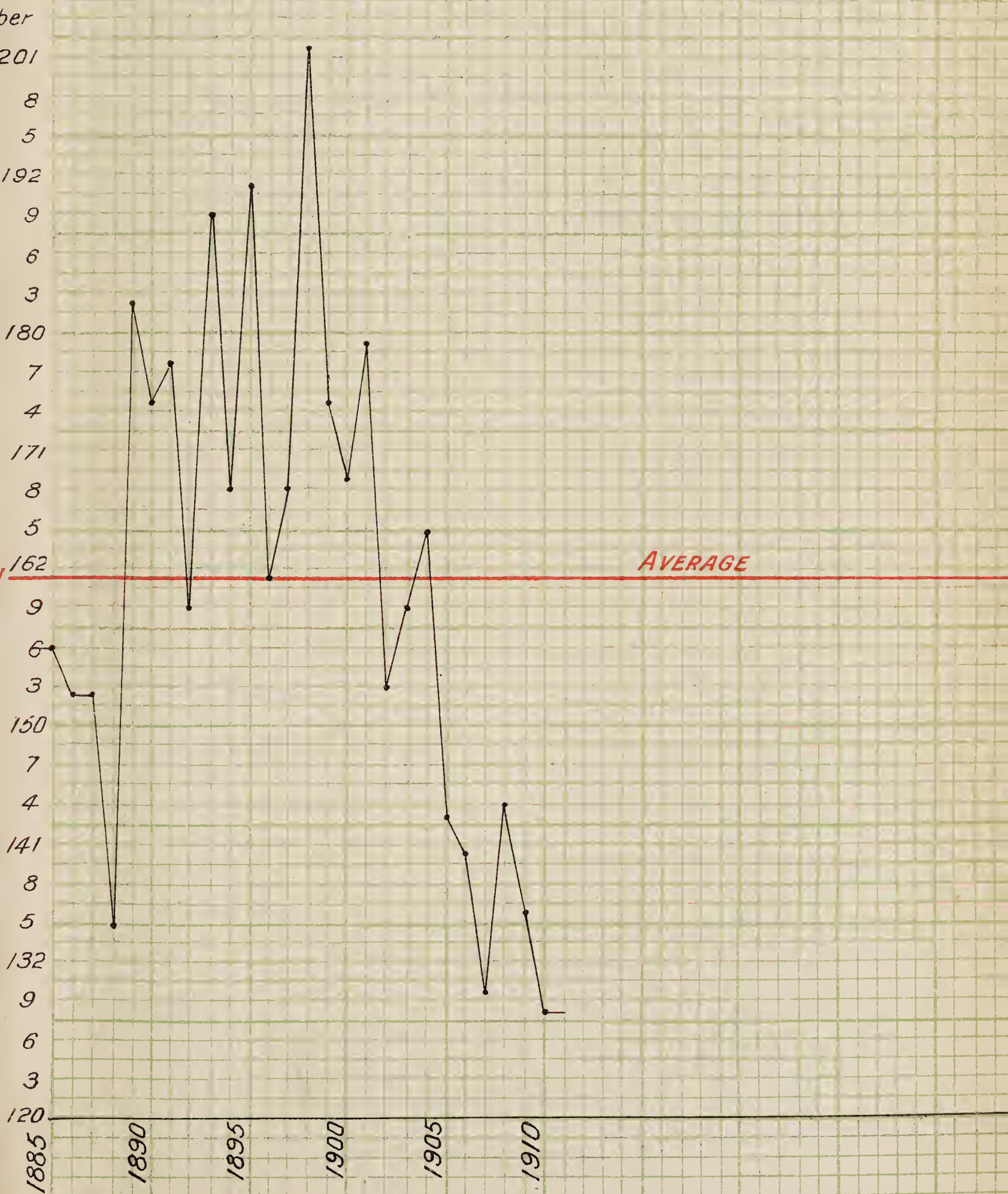
(Signed) J. and H. S. PATTINSON.

INFANTILE MORTALITY.

The following Table indicates the Infantile Mortality figure in Sunderland contrasted with that of England and Wales from 1885 :—

	Infantile Mortality in Sunderland	Infantile Mortality in England and Wales
1885	156	138
1886	152	149
1887	152	145
1888	135	136
1889	182	144
1890	175	151
1891	178	149
1892	159	148
1893	189	159
1894	168	137
1895	191	161
1896	161	148
1897	168	156
1898	202	160
1899	175	163
1900	169	154
1901	179	151
1902	153	133
1903	159	132
1904	165	145
1905	143	126
1906	140	132
1907	130	115
1908	144	121
1909	136	118
1910	128	106
1886 } 1890 }	Average 159	145
1891 } 1895 }	177	151
1896 } 1900 }	175	156
1901 } 1905 }	160	137
1906 } 1910 }	135	118

DEATH-RATE OF CHILDREN UNDER ONE YEAR
PER 1,000 BIRTHS - FROM 1885 TO 1910.



In the Table on page 54 it will be seen that the infantile mortality figure for 1910 has fallen to 128, being 8 less than in the previous year, and that the average for the last five years has fallen from 160 to 135, a difference of 25.

On reference to Table V., page 90, it will be observed that 588 children died under the age of one year.

Of the 588 :—

231, or 39·3 per cent. died within one month from birth.

142, or 24·1 per cent. died within one week of birth.

The following Table shows the *Principal Causes* of death in children under one year of age for 1910, the death-rate per 1,000 children born, and the average death-rate for the last six years :—

INFANTILE DEATHS :—WHOLE BOROUGH.

CAUSE OF DEATH	Number of Deaths	Death-rate per 1,000 Births	Average Death-rate per 1,000 Births for the last six years
Measles	10	2·1	3·0
Diarrhoeal Diseases	68	14·8	18·4
Premature Birth.....	94	20·5	19·2
Congenital Defects	20	4·3	4·2
Atrophy, Debility Marasmus .	157	34·2	29·8
All Tubercular Diseases	15	3·2	4·4
Simple Meningitis	12	2·6	2·7
Convulsions	30	6·5	8·9
Bronchitis	78	17·0	19·4
Pneumonia	31	6·7	9·2
Suffocation	9	1·9	1·3
Whooping Cough	19	4·1	5·3
	543	117·9	125·8

There are practically only two causes of death in the above Table which give a death-rate above the average of the last six years, viz.:—Atrophy, Debility and Marasmus, and Premature Birth.

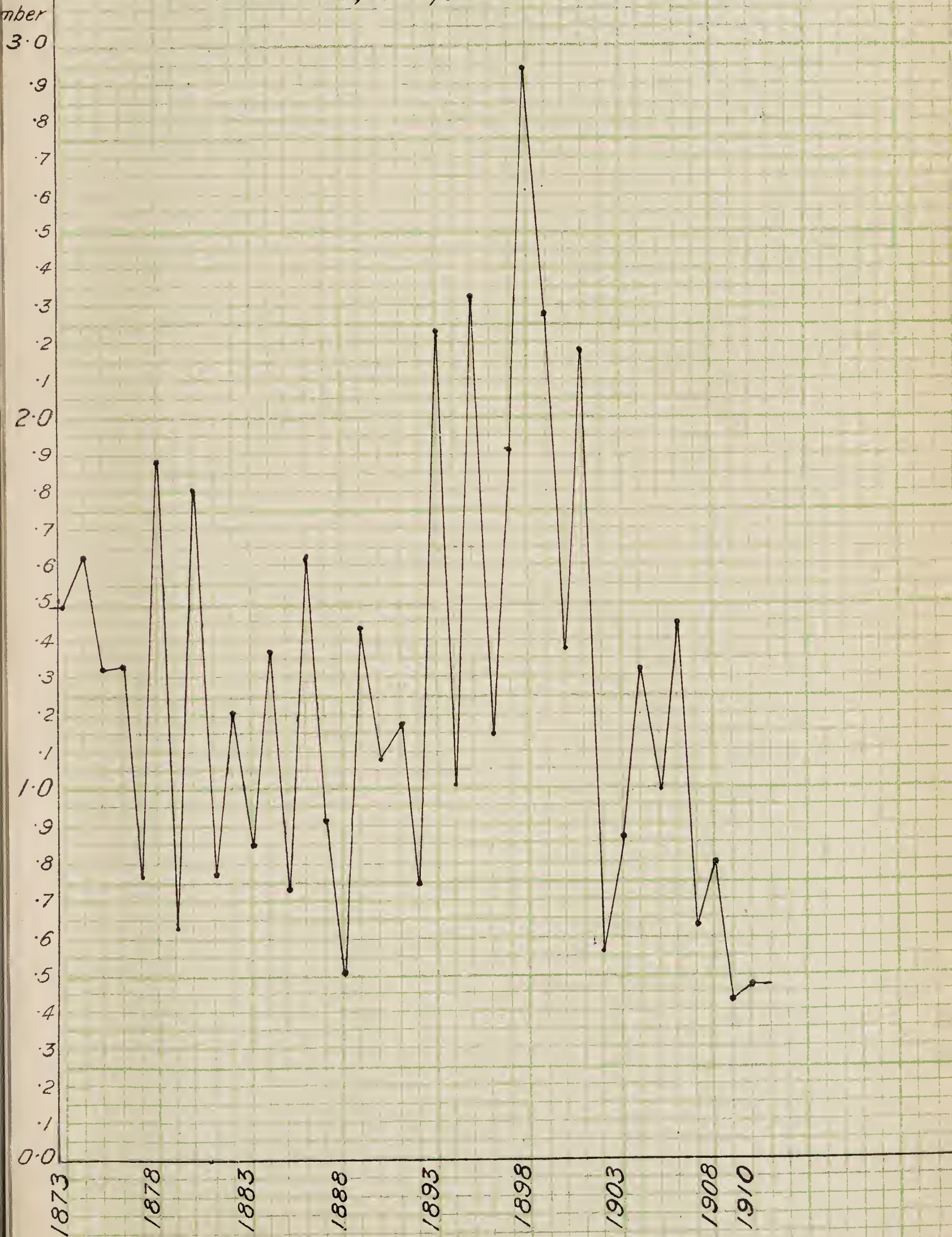
As I have said in previous Annual Reports, there are many causes of Premature Birth, and it is very difficult to come to a definite conclusion in these cases, but speaking generally, poverty, intemperance, work undertaken when the mother is unfit, debility, early-marriage, and certain diseased conditions are the principal factors which make for this state of things. It is probable that abortifacients are used. I have heard it hinted again and again. If this is so, I cannot speak too strongly against such a criminal practice, which having accomplished the desired object, or not, is fraught with disastrous effects to those who use them, effects which frequently cause serious disease and even death.

The deaths due to Atrophy, Debility and Marasmus were no doubt increased in number owing to the poor condition of the mothers during the trade depression of the previous years.

The following Table shows the principal causes of death of children under one year of age, the death-rate per 1,000 children born for the year 1910, and the average death-rate of children under one year, for the last six years, in the East, West, and North Districts:—

Cause of Death	EAST DISTRICT		WEST DISTRICT		NORTH DISTRICT	
	Death-rate per 1,000 Births	Average Death-rate for last six years	Death rate per 1,000 Births	Average Death-rate for last six years	Death-rate per 1,000 Births	Average Death-for last last six years
Measles	2·3	3·8	2·3	2·6	1·7	2·9
Diarrhoeal Diseases	20·8	21·7	10·4	15·3	12·3	19·5
Premature Birth.	18·0	19·5	23·2	19·1	20·2	18·9
Congenital defects	2·3	2·8	5·2	5·4	6·1	4·7
Atrophy, Debility						
Marasmus	29·5	32·0	38·9	30·6	34·3	35·6
All Tubercular Diseases	1·7	4·0	4·6	5·4	3·5	3·8
Simple Meningitis	4·0	3·7	0·7	1·2	3·5	3·6
Convulsions	9·8	12·3	3·4	6·5	6·1	7·6
Bronchitis	26·6	29·3	13·9	14·0	7·0	11·3
Pneumonia	6·9	8·0	5·2	8·2	8·8	12·6
Suffocation	1·1	0·86	2·3	1·8	2·6	1·2
(over-laying)						
Whooping Cough	4·0	4·6	5·2	6·6	2·6	4·0

DEATH-RATE FROM DIARRHOEAL DISEASES *
FROM 1873 - 1910, PER 1,000 OF THE POPULATION.

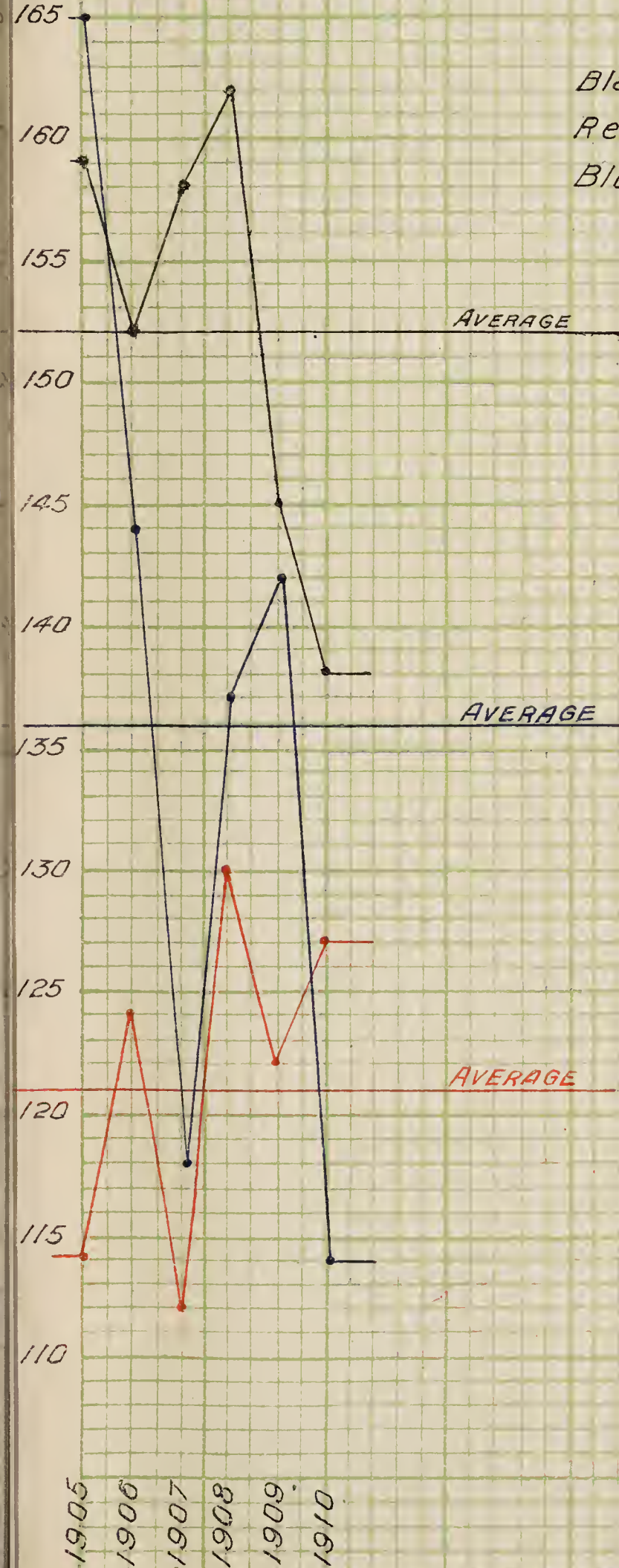


* DIARRHOEAL DISEASES INCLUDE DYSENTERY,
CHOLERA NOSTRAS, ENTERITIS & GASTRO-ENTERITIS.

INFANTILE MORTALITY FROM 1905 to 1910.

Black lines = East District
Red " West "
Blue " North "

No. of Deaths
per 1000 Births



Comparing the three districts with each other, it will be seen that of the preventible causes the West district has the lowest rate for *Diarrhæal Diseases*, considerably below the average for that district, and even more so below the average for the whole Borough. The East was the worst district. The lowest rate for *Premature Birth* was in the East district, it was below the average for the Borough, and also below the average for the district. The West district had the highest rate. The East district, again, had the lowest rate for *Atrophy, Debility and Marasmus*, much below its average-rate, and slightly below that for the Borough. It was decidedly the lowest for *All Tubercular Diseases*, very much below the average both of the District and the Borough.

The rate for Simple Meningitis was lowest in the *West district*. The lowest rate for *Convulsions* was in the North district, which also had by far the lowest rate for *Bronchitis*. The West district had twice as high a mortality from Bronchitis as the North, and the East more than three times that of the North. *Pneumonia*, however had the highest rate in the North, and the lowest in the West district.

The mortality due to Over-laying was lowest in the East, higher in the West, and highest in the North district.

It is very interesting to compare the total Infantile Mortality of the three districts. This is graphically shown in Chart No. 14, page 61, where the death-rates are shown in a different colour for each district. The result is very striking, for it will be seen that though the North district was highest six years ago, it is now the lowest; the East, then only slightly below the North, now occupies a position midway between the highest and lowest death-rates for the latter district; whilst the West district which started in 1905 with the low rate of 114 per 1,000 births, now has a death-rate of 127 per 1,000. This increased death-rate among children under one year of age in the West district, appears to be mainly due to Atrophy, Debility and Marasmus, and Premature Birth. The death-rate for Atrophy, etc., in 1910 was 38·9 per 1,000 births, and the average for the last six years was 30·5, the average for the Borough being 29·8. Premature Birth in the West district, caused a death-rate of 23·2 per 1,000 births in 1910, the average for the last six years being 19·1, and that for the Borough, 19·2

The following Table shows the Mortality among children under one year of age per 1,000 births, the average death-rate for the years 1905 to 1910, at *different age periods*, for the three districts and for the whole Borough :—

	EAST DISTRICT.		WEST DISTRICT.		NORTH DISTRICT.		WHOLE BEROUGH.	
	Death rate per 1000 Births in 1910.	Average Death rate for last 6 years.	Death rate per 1000 Births in 1910.	Average Death rate for last 6 years.	Death rate per 1000 Births in 1910.	Average Death rate for last 6 years.	Death rate per 1000 Births in 1910.	Average Death rate for last 6 years.
Death-rate per 1,000 Births under 1 year of age....	138	152	127	121	114	136	128	137
Death-rate per 1,000 Births, at the following age-periods :—								
Under 1 week	26·6	28·2	34·8	29·0	31·6	30·6	31·0	29·0
1, and under 2 wks	6·3	7·3	9·3	6·1	7·9	6·1	7·8	6·6
2, „ 3 „	6·9	7·1	8·1	5·3	6·1	5·9	7·2	6·1
3, „ 4 „	5·2	5·1	3·4	4·2	4·4	6·3	4·3	5·0
All under 4 weeks	45·2	47·8	55·7	44·7	50·1	49·2	50·4	46·9
1 to 3 months ...	26·1	27·2	19·1	21·6	19·3	24·2	21·8	24·3
3 „: 6 „ ...	31·9	29·7	22·0	22·0	15·8	20·9	22·0	24·2
6 „ 9 „ ...	13·3	23·3	12·7	14·9	16·7	22·7	13·9	19·9
9 „ 12 „ ...	22·0	25·2	17·4	18·0	12·3	19·2	17·8	21·1
No. of Births	1724	1920	1721	1957	1137	1198	4582	5076

The fore-going Table shows that on the whole, all the districts are improving, notwithstanding the fact that the Infantile Mortality figure has risen to the extent of 5 per 1,000 births in the West.

EAST DISTRICT.—There is improvement in this district at every age period, with the exception of that of 3 weeks and under 4 weeks, and that of 3 months and under 6 months. A very great amount of work is necessary in order to ascertain the cause of increase in Mortality at a given age-period. This has been done in some instances, and it was found that the rise which took place in the East district for the 3 to 6 months age-period, was due principally to Diarrhoeal Diseases and Bronchitis. There has been a great saving of life in the age-period of 6 to 9 months, and to an appreciable extent in the following period.

WEST DISTRICT.—The figures for children under 1 week and up to 3 weeks are not satisfactory. The remaining periods show an improvement on the average, and, on the whole, when compared with the previous year.

NORTH DISTRICT.—The same remarks with regard to the periods up to 3 weeks apply also to this district. In the remaining periods however, there is distinct improvement on the average, and also as compared with the previous year.

WHOLE BOROUGH.—Here again the figures are above the average for the first three age-periods. The remaining periods show improvement, more especially so in the two last, both on the average and when compared with the previous year.

The Tables for the previous years have not been introduced in order to avoid confusion.

BIRTHS.—It will be observed that the Births are much below the average in the East and West districts, and also in the whole Borough.

HEALTH VISITORS' REPORT.

The following is a summary of the work done by the Health Visitors during the year, compared with the previous year:—

	YEAR 1910.	YEAR. 1909.
Visits to Premises where children suffered from Infectious Diseases	1075	1396
Cases of Puerperal Fever visited (not included in the above)	5	4
Number of Visits to Consumptive Cases (not included in the above)	88	81
Number of Re-visits to Consumptive Cases	379	231
Visits to Infants immediately after Birth	4111	4032
Number of Re-visits to Infants	8490	9645
Visits to houses where Infants had died under the age of one year	521	499
Visits to Boarded-out children, undertaken at the request of the Board of Guardians	69	...
Visits to Midwives	487	276
TOTAL	15225	16164

THE MIDWIVES ACT, 1902.

Two women were summoned before the Borough Justices for practising as midwives when not registered as such, and were cautioned.

A midwife was reported to the Central Midwives' Board in November, 1909. The case was still pending at the end of that year. She was ultimately struck off the Roll.

At the beginning of the year, 33 midwives sent in notice of intention to practice. Three of these have had hospital training and are certified by examination.

The majority of the midwives are uneducated, but more care is taken than formerly in recording information required in the register of cases. In the case of those quite illiterate this is done by a member of the family.

Several are in poor circumstances and doing but little midwifery; two are doing chiefly monthly nursing.

The Health Visitors, who call frequently to inspect their registers, bags and appliances, find that greater care is taken in keeping them up to the required standard.

Dresses and bodices of washable material are worn by the women, most of whom are clean and tidy in person and surroundings, and, as far as can be ascertained, their mode of practice is fairly satisfactory.

The rule for sending for medical help has been observed more carefully. The following notifications of sending for medical help were received :—

Weakness of Child	5
Congenital Defects	1
Fits	1
Stillbirths	28
Premature Birth.....	1
Face Presentation	1
Hand Presentation	1
Transverse Presentation	2
Foot Presentation	2
Difficult and Prolonged Labour	28
Placenta Prævia	1
Retained Placenta	1

SUNDERLAND CORPORATION ACT, 1907,

NOTIFICATION OF BIRTHS.

The Births which took place during the year amounted to 4,454; of these, 4,341 were notified to me under the provisions of the above Act, the number so notified being at the rate of 97·5 per cent.

In the East district 1,694 births occurred, of which 1,648 were notified = 97·2 per cent.

In the West district 1,654 births occurred, of which 1,629 were notified = 98·5 per cent.

In the North district 1,106 births occurred, of which 1,064 were notified = 96·2 per cent.

VISIT OF DR. HANCOCK.

On March 19th, 1910, Dr. George C. Hancock, one of the Medical Inspectors of the Local Government Board, commenced an enquiry relative to the administration of the Unsound Food and Foreign Meat Regulations, at the Port of Sunderland, and subsequently to enquire into the method of administration of the Sale of Food and Drugs Acts, and the inspection of foods in the Borough. He visited the Warehouses on the River and at the Docks as well as the Fish Quay, to enquire into the inspection of food brought by ships. He afterwards made a very thorough inspection of the Slaughter-houses and Butchers' Shops, and of the Milk Shops in the Borough, and finally of the Farms certified by the Health Committee both within and without the Borough. With the method of the administration of the Foreign Meat Regulations he appeared to be quite satisfied, and he also expressed approval of the condition of the Certified Farms. He reported, as one expected, most unfavourably with regard to many of the Slaughter-houses, which are disgraceful.

For a long time previous to Dr. Hancock's visit, the Chief Sanitary Inspector had been preparing a Report on the condition of all the Butchers' Shops and Slaughter-houses in the Borough. Every one of them was inspected by him and all those in bad condition, conjointly by him and myself. This Report has received very full consideration by the Health Committee; new Regulations have been drawn up and await the approval of the Local Government Board, after which there will no doubt, be a great improvement in the Shops and Slaughter-houses.

LOCAL GOVERNMENT BOARD ORDER, DATED NOVEMBER 10TH, 1910, AS TO PLAGUE INFECTION.

The contents of this Order were read to the Health Committee on November 24th, 1910, when the Medical Officer of Health reported that he had given instructions to all the Sanitary Inspectors of the Borough and of the Port, to keep a look-out for any unusual mortality among rats, and to report to him at once, should they have reason to suspect the presence of disease among rats.

Increased vigilance has been exercised, but no dead rats have been found, nor any suspicion of disease.

HOUSING, TOWN PLANNING, ETC., ACT, 1909.

An extensive List has been prepared of houses which in the opinion of the Medical Officer of Health, an early inspection is desirable, and numerous inspections have been made.

During the year, the Medical Officer of Health reported that 36 houses were unfit for human habitation, and Closing Orders were made under Section 17 of the above Act. The working of the Act has proceeded smoothly, and has resulted in much improvement of the Sanitary condition of the houses already. At the end of the year, in no case was the work quite completed, so that determining Orders could not be made.

NEW HOUSES.

The following is the Report of the work performed by the Inspector of Drains and Sanitary Fittings in New Houses during the year :—

Number of visits made.....	4,454
Number of Tests applied to Drains and Sanitary Fittings—	
Water Tests.....	1,587
Smoke Tests	110
	<hr/>
Total	1,697
Number of Certificates sent to the Borough Engineer	90
Number of cases where it was found necessary to order concrete found- ations for drains.....	561
Approximate length of drains laid.....	20,003 feet

THE HARRISON BUILDINGS.

The Seventh Annual Report of the Harrison Buildings, made by the Superintendent, Mr. Joseph D. Ward.

On December 31st, 1910, there were 17 houses occupied, viz., 9 consisting of three rooms, and 8 consisting of two rooms each. Sixty-seven houses were unoccupied, viz., 27 of three rooms, and 40 of two rooms each. Out of a total of 84 houses 67 are vacant, as against 46 at the end of 1909.

The rent collected during the year amounts to £289 7s. 3d., compared with £403 5s. 0d., in 1909, a decrease of £113 17s. 9d., making the total amount of rent collected since the houses were opened to be £4,443 12s. 8d.

The arrears of rent amounted to £19 15s. 6d. as against £20 6s. 10d. for last year, a decrease of 11s. 4d.

The total irrecoverable arrears of rent since the Buildings were opened amounts to £37 19s. 6d., or a fraction over 2d. for every sovereign collected.

The following Table shows the amount of rent collected for each year, and the arrears of rent :—

Year.	Rent Collected.	Arrears.
	£ s. d.	£ s. d.
*1903	65 0 11	...
1904	492 6 7	0 17 6
1905	709 4 3	3 9 3
1906	889 15 0	1 13 0
1907	867 16 3	8 14 8
1908	726 17 5	33 9 1
1909	403 5 0	20 6 10
1910	289 7 3	19 15 6
Totals ...	£4443 12 8	

* The buildings were opened in September, 1903.

Of the 17 tenants at present occupying houses :—

5	have been in for 7 years.
4	„ „ 5 „
1	has „ 3 „
2	have „ 2 „
3	„ „ 1 year
2	„ „ under 1 year.

There have been 3 Births and 2 Deaths (1 from Consumption and 1 from Cancer) during the year 1910.

There were only two cases of Infectious Disease during the year, both being Typhoid Fever. The patients were two brothers, one 11 years of age and one 9, and both had been eating raw mussels gathered from the river bed near the foot of the Long Bank, High Street East. They were removed to the Borough Sanatorium, and eventually recovered.

The population of the houses at the end of 1910 numbered 84 persons, an average of a little under two persons to every occupied room.

The following Table shows the population, number of Births, Deaths, and cases of infectious Disease occurring since the opening of the Buildings :—

Year.	Population.	Births.	Deaths	Infectious Diseases.
1904	234	10	4	Nil.
1905	305	15	4	Nil.
1906	335	17	7	12
1907	286	20	4	4
1908	190	14	2	Nil.
1909	182	11	3	1
1910	84	3	2	2

The Medical Officer of Health wishes to add that the Superintendent has performed his duties in his usual conscientious and efficient manner.

SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1910.

Months.	Barometer (correct to sea level and 32° F.	Mean Temperature.	Mean of Maximum Temperature.	Mean of minimum Temperature.	Mean Temperature, 1 ft. Earth Thermometer.	Mean Temperature 4 ft Earth Thermometer.	Mean Humidity.	Number of days on which rain fell.	Total Rainfall.	Direction of Wind. Number of Days.							
										N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
January	29.688	37.6	42.6	33.1	38.1	41.7	83.7	12	2.02	1	1	2	...	...	7	16	4
February	29.456	40.6	44.7	35.4	37.6	40.2	84.6	15	2.29	1	...	1	...	7	3	13	2
March	30.106	44.5	48.4	37.9	40.3	40.9	76.0	5	0.55	3	1	...	3	6	2	8	8
April	29.764	46.0	50.0	38.2	43.0	43.2	77.9	15	1.75	3	2	4	1	3	4	10	3
May	29.911	49.7	54.5	43.3	47.3	46.0	84.1	17	2.37	6	4	5	1	1	1	9	4
June	29.881	56.7	61.0	49.5	54.4	51.1	78.1	10	1.65	2	9	6	5	...	...	6	2
July	29.840	56.4	60.1	50.7	55.0	53.7	78.5	11	2.38	9	4	3	1	1	5	4	4
August	29.788	59.5	64.3	52.9	57.4	55.6	78.8	15	2.71	3	2	5	2	5	3	10	1
September	30.229	55.3	58.9	48.4	54.0	54.8	82.3	9	0.57	12	1	2	1	...	3	6	5
October	30.067	52.5	56.3	47.5	51.5	53.1	78.9	16	2.60	1	4	11	...	1	3	6	5
November.....	29.555	38.1	43.3	33.5	40.9	47.6	80.7	23	2.71	2	1	...	2	4	1	13	7
December	29.607	43.6	47.1	39.6	41.3	44.3	82.5	20	1.95	...	...	4	7	6	1	10	3
Totals .....	...	...	...	...	...	...	...	168	23.55	43	29	43	24	34	33	111	48
Averages .	29.824	48.4	52.6	42.5	46.7	47.7	80.5	...	...	...	...	...	...	...	...	...	...

The average rainfall for the last 36 years is 25.60.

Annual Report of the Medical Officer of Health for the Year 1910 for the County Borough of Sunderland on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces, and Homework.

1. INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections (2)	Written Notices. (3)	Prosecutions. (4)
Factories (Including Factory Laundries)	743	31	...
Workshops (Including Workshop Laundries)	2142	60	...
Workplaces (Other than Outworkers' premises included in Part 3 of this Report) ...	1700	56	...
Total	4585	147	...

2. DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars. (1)	Number of Defects.			Number of Prosecutions. (5)
	Found (2)	Re-mediated. (3)	Referred to H.M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of Cleanliness.....	80	80	...	...
Want of Ventilation	2	2	...	...
Overcrowding	1	1	...	...
Want of Drainage of Floors	1	1	...	...
Other Nuisances	70	70	...	...
Sanitary † { Insufficient.....	4	4	...	...
Accommo- { Unsuitable or Defective	31	31	...	...
ation. { Not separate for Sexes	1	1	...	...
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground Bakehouse (s. 101) .....	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100).....	22	22	...	...
<i>Other Offences :—</i> (Excluding offences relating to outwork which are included in Part 3 of this Report). .....	...	...	12	...
Total	212	212	12	...

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

† Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council. Conveniences provided on the basis recommended by the Sanitary Accommodation Order of February 4th, 1903.

3.—HOME WORK.

[illegible]

HOME-WORK.—CONTINUED.

* If an occupier gives out work of more than one class specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class *only*, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2, 3 and 4 are the *total* number of the lists received from those employers who comply strictly with the statutory duty of sending *two* lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be *even* numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

‡ In view of the wide discrepancies found to exist between the totals in the two columns when the returns are added together, it is desired that care may be taken to give exact figures. Only those addressed should be counted which have actually been received from or forwarded to other Councils during the year covered by the report.

4. REGISTERED WORKSHOPS.		5. OTHER MATTERS.	
Workshops on the Register (s. 131) at the end of the year. (1)	No. (2)	Class. (1).	No. (2)
Bakers and Confectioners.....	146	Matters notified to H.M. Inspector of Factories :—	
Blacksmiths	15	Failure to affix Abstract of the Factory and Workshop Act (s. 133)	12
Boot and Shoe makers	70	Action taken in matters referred } Notified by H. M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s. 5) {	15
Cabinet Makers	30	Reports (of action taken) sent to H.M. Inspector	14
Joiners	72	Other.....	12
Milliners and Dressmakers	127	Underground Bakehouses (s. 101) :—	
Plumbers	28	Certificates granted during the year .....	...
Tailors	73	In use at the end of the year	4
Other Workshops (including 253 Factories).....	672		
Total number of Workshops on Register	1233		

SALE OF FOOD AND DRUGS ACTS.

Report of the Public Analyst appointed for the County Borough of Sunderland upon the articles analysed by him under the above Acts.

1.—THE QUARTER ENDED 31st MARCH, 1910.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations
24 Milks	By an Officer acting under the direction of the Town Council.	Genuine	
1 do. No. 7.....		10 per cent def. in milk-fat	Dismissed. Letter of caution.
1 do. No. 23.....		8.3 do.	
1 do. No. 22.....		3.0 per cent def. in non-fatty solids	Do.
1 do. No. 38.....		11.7 per cent def. in non-fatty solids and 3.3. per cent. def. in fat	
5 Skimmed milks		Genuine	£5 & Costs.
1 do. No. 2.....		Adulterated, contains 0.10 per cent boric acid	£1 & Costs.
1 do. No. 24.....		Adulterated, contains 0.15 per cent. boric acid	
9 Butters		Genuine	40/- & costs 4 of these were informal samples
1 do. No. 11.....		Doubtful, contains 0.04 per cent. boric acid	Informal sample.
1 do. No. 48.....		do. 0.05 do.	do.
1 Margarine No.71		do. 0.15 do.	do.
1 do. No. 72		do. 0.20 do.	do.
1 do. No. 73		do. 0.10 do.	do.
2 do.		Genuine	do.
1 do. No. 45		Doubtful, contains 0.56 per cent. boric acid	do.
1 do. No. 50		do. do. 0.27	do.
9 Lard		Genuine	do.
3 Dripping		Genuine	do.

QUARTER ENDING 31st MARCH, 1910.—Continued.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority. under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations
1 Preserved Peas No. 53	By an Officer acting under direction of the Town Council	Adult., contains 0.0057 per cent. copper	Informal sample.
1 do. No. 54		do. 0.0016 do.	do.
1 do. No. 60		do. 0.0049 do.	do.
1 do. No. 63		do. 0.0040 do.	Letter of caution.
1 do. No. 65		do. 0.0050 do.	do.
1 do. No. 66		do. 0.0040 do.	do.
1 do. No. 67		do. 0.0036 do.	do.
1 Pickled Onions		Genuine	

All the samples of Milk and Butter were examined for Preservatives.

Genuine Samples53
Non-Genuine Samples13
Doubtful..... 7

—
73
—

2.—QUARTER ENDED 30th JUNE, 1910.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations
43 Milks	By an Officer acting under direction of the Town Council.	Genuine	
1 do. No. 76.....		3.3. per cent def. in fat...	Letter of caution.
1 do. No. 80....		8.3 do. do.	do.
1 do. No. 81....		13.3 do. do.	£10 & costs.
1 do. No. 122 ...		11.6 do. do.	Letter of caution.
1 do. No. 123...		4.5 per cent. def. of non-fatty solids.....	20/- & costs
1 do. No. 156...		8.9 do. do.	Letter of caution.
1 do. No. 157...		8.3 per cent. def. of fat	do.
1 do. No. 158...		6.6 do. do.	do.
1 do. No. 159...		3.3 do. do.	do.
1 do. No. 160...		5.0 do. do.	do.
1 do. No. 163...		8.3 do. do.	do.
1 do. No. 167...		3.3 do. do.	do.
1 do. No. 175...		2.3 per cent. def. of non-fatty solids.....	do.
1 do. No. 178...		4.2 do. do.	do.
4 Citric Acid		Genuine	Informal samples.
1 do. do. 88...		Tartaric acid, not citric acid	do.
1 do. do. 129...		do. do.	20/- & costs
3 Carbonate of Magnesia.....		Genuine	Informal
4 Tartaric acid ...		do. .	do.
1 do. No. 98...		Contains 0.64 per cent calcium sulphate.....	do.
1 do. No. 130..		Contains 0.52 per cent. calcium sulphate.....	
3 Glycerine		Genuine	Informal
2 Gregory Powders		Genuine	do.
4 Ground Ginger .		Genuine	do.
9 Butters		Genuine	5 of these Informal samples.
1 do. No. 105...		Contains 0.06 per cent boric acid (doubtful) ...	Informal
1 do. No. 106...		Contains 100 per cent margarine.	do.

QUARTER ENDING 30TH JUNE, 1910.—Continued.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations
1 Butter No. 128...	By an Officer acting under direction of the Town Council	Contains 100 per cent. margarine with 0.12 per cent boric acid.	Letter of caution.
4 Lards.....		Genuine	Informal.
3 Cheese		Genuine	do.
3 Condensed Milk		Genuine	do.
4 Sweets		Genuine	do.
3 Rochelle Salt ...		Genuine	do.

All the samples of Milk and Butter were examined for Preservatives.

Genuine Samples	89
Doubtful Samples.....	1
Non-Genuine	20
	<hr/>
	110
	<hr/>

3.—QUARTER ENDED 30th SEPTEMBER, 1910.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations
42 Milks,	By an Officer acting under direction of the Town Council.	Genuine	
1 do. No. 198.		Def. in fat, 6.6 per cent..	Letter of caution.
1 do. No. 216.		do. 1.7 do.	
1 do. No. 217.		Def. in non-fatty solids 0.7 per cent.	do.
1 do. No. 219.		do. 2.6 do.	do.
1 do. No. 223.		do. 3.0 do.	
1 do. No. 228.		Def. in fat, 23.3 per cent	10/- & costs
1 do. No. 234.		do. 13.3 do.	Letter of caution
1 do. No. 235.		do. 16.6 do.	do.
1 do. No. 237.		do. 8.3 do.	do.
1 do. No. 239.		do. 13.3 do.	Dismissed
1 do. No. 242.		do. 6.6 do.	Letter of caution
1 do. No. 244.		do. 6.6 do.	do.
1 do. No. 247.		do. 13.3 do.	Dismissed
1 do. No. 250.		do. 16.6 do.	do.
1 do. No. 252.		do. 10.0 do.	Letter of caution
1 do. No. 289.		do. 6.6 do.	Dismissed
1 do. No. 290.		do. 8.3 do.	do.
1 do. No. 291.		do. 8.3 do.	Letter of caution.
1 do. No. 292.		do. 3.3 do.	do.
1 do. No. 293.		do. 5.0 do.	do.
1 do. No. 296.		do. 6.6 do.	Dismissed
1 Skimmed milk, No. 257.		Def. in milk-solids 1.4 per cent	Letter of caution.
1 do, No. 258.		Def. in milk-solids 2.3 per cent.	do.
10 Condensed milk		Genuine	Informal
11 Butter		do.	8 of these informal
10 Lard		do.	7 do.
3 Oatmeal		do.	
4 Pepper		do.	1 Informal
1 Gregory powder		do.	Informal

QUARTER ENDED 30TH SEPTEMBER, 1910.—Continued.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority. under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations
6 Jam and Marmalade 1 Ground Rice 1 Coffee, No. 275. 1 Nut Margarine . 1 Corn Flour 1 Baking Powder 1 Camphorated oil	By an Officer acting under direction of the Town Council	Genuine do. Contained 40 per cent Chicory Genuine do. do. do.	Informal. do. do. do. do. do.

All Milk, Butter, and Margarine Samples Examined for Preservatives.

Genuine Samples92
Non-Genuine Samples 24

4.—QUARTER ENDED 31st DECEMBER, 1910.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority. under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations
18 Milk	By an Officer acting under direction of the Town Council.	Genuine	Informal
7 Butter		do.	do.
6 Lard		do.	do.
1 Honey		do.	do.
1 Blk. Currant Jam		do.	do.
1 Condensed Milk		do.	do.
1 Turpentine		do.	do.
1 Compound Liquorice Powder		do.	do.

All Milk and Butter Samples Examined for Preservatives.

Genuine Samples36

—
36
—

SUMMARY FOR THE YEAR.

Genuine Samples Examined 270

Non.Genuine Samples Examined 38

Doubtful Samples Examined 27

Total 335
—

JOHN PATTINSON,

J. T. DUNN,

Public Analysts.

CONCLUSION.

I wish to thank my colleagues in the other Departments of the Corporation for their assistance so freely extended to me during the year, also the Chief Constable, the Clerks to the Justices of the Peace for the County and Borough, the Clerk to the Guardians, the Head Teachers of the Council Schools, and the Vaccination Officers.

I acknowledge with thanks the many courtesies I have received from the Medical Officers of Health of other towns.

My thanks are due also to Chief Inspector Pennock and to the whole of the Staff of the Health Department, who have worked with admirable zeal in the administration of the work.

HENRY RENNEY, M.D., B.S., D.Hy., D.P.H.
Medical Officer of Health.

May, 1911.

APPENDIX.

VITAL AND SANITARY

STATISTICS,

TOGETHER WITH

NEW TABLES REQUIRED BY THE LOCAL
GOVERNMENT BOARD.

1910.

INCLUDING THE

ABSTRACT FOR TEN YEARS, 1901-1910.

LOCAL GOVERNMENT BOARD TABLE I.

Showing the Population, Births, and Deaths for the whole of the Borough for the year 1910 and 10 years preceding.

Year.	Population estimated to Middle of each Year.	Births.		Deaths under 1 year of age.		Deaths at all ages Total.		Deaths in Public Institutions.	Deaths of Non-residents registered in District.	Deaths of Residents registered beyond District.	Deaths at all ages Nett.	
		Number.	Rate.*	Number.	Rate per 1000 Births registered.	Number.	Rate*.				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1900	144945	5256	36.3	889	167	3147	21.7	405	...	...	...	...
1901	146456	5279	36.0	946	179	3123	21.3	401	...	...	...	...
1902	147983	5391	35.7	825	171	2914	19.3	456	...	...	...	...
1903	149526	5195	34.5	817	157	2970	19.8	481	...	...	...	...
1904	151084	5194	34.4	857	165	2935	19.4	464	...	...	...	...
1905	152659	5223	34.2	748	143	2853	18.6	485	...	...	...	...
1906	154251	5375	34.8	752	140	2858	18.5	474	...	...	...	...
1907	155859	5330	34.2	696	130	2973	19.1	500	...	...	...	...
1908	157484	5180	32.9	748	144	2754	17.5	511	...	...	...	...
1909	159126	4765	29.4	650	136	2763	17.0	591	...	...	...	...
Averages for years 1900-9	150372	5261	34.9	819	157	2964	19.7	464	...	...	...	...
1910	160785	4582	28.5	588	128	2548	15.8	531	...	...	...	...

* Rates calculated per 1,000 of estimated population.

NOTE.—The Deaths to be included in Column 7 of this table are the whole of those registered during the year, as having actually occurred within the district or division. The Deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of illness, and dying there; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

Area of District in acres, 3,357			} At Census of 1901,
Total Population at all ages	146,077		
Number of Inhabited Houses	21,473		
Average Number of Persons per House	6.8		

LOCAL GOVERNMENT BOARD TABLE II.

Showing the Population, Births, and Deaths for the Three Districts of the Borough for the year 1910.

Year.	SUNDERLAND EAST.				SUNDERLAND WEST.				SUNDERLAND NORTH.			
	a. Population esti- mated to middle of each year.	b. Births regis- tered.	c. Deaths at all Ages.	d. Deaths under 1 year.	a. Population esti- mated to middle of each year.	b. Births regis- tered.	c. Deaths at all Ages.	d. Deaths under 1 year.	a. Population esti- mated to middle of each year.	b. Births regis- tered.	c. Deaths at all Ages.	d. Deaths under 1 year.
1900	The Registration figures of Sub-Districts	1884	1269	351	the Borough were for 1903, 1904,	2125	1090	re-arranged in 1906, 1905,	1902, hence I can only give 1907, 1908, 1909, & 1910.	1186	611	186
1901												
1902												
1903												
1904												
1905												
1906												
1907												
1908												
1909												
Averages of Years 1900 to 1909
1910	59468	1724	1089	238	66076	1721	942	220	35241	1137	517	130

LOCAL GOVERNMENT BOARD TABLE III.

Showing the Cases of Infectious Disease notified during the Year 1910.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.				***NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.				Total cases removed to Hospital.
	At all Ages.	† At Ages—Years.						Sunderland East.	Sunderland West.	Sunderland North.	Sunderland East.	Sunderland West.	Sunderland North.			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.									
Small-pox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous croup)	161	...	54	83	14	10	...	42	77	42	...	...	...	...	...
Erysipelas.....	163	...	...	...	...	...	...	65	71	27	...	...	...	...	...
Scarlet Fever.....	432	9	106	...	19	9	...	144	165	123	77	103	62	242	...	
Typhus fever .....	...	...	...	298	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	59	...	7	19†	18	15	...	20	26	13	19	23	13	55	...	
Relapsing fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever	2	...	...	...	1	1	...	...	...	2	...	...	2	...	...
Puerperal fever	9	...	...	...	...	...	...	4	4	1	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Phthisis.....	46	...	...	...	...	...	...	21	19	6	...	...	...	...	...
(Voluntary Notification)																
*Phthisis—Public Health	99	...	2	8	20	67	2	46	26	27	...	...	...	...	...
(Tuberculosis) Regulations																
Totals	971	...	...	...	...	...	...	342	388	241	96	126	77	299	...

NOTES.—The localities adopted for this table should be the same as those in Tables II. and IV.

State in space below the name of the isolation hospital, if any, to which residents in the district, suffering from infectious disease, are usually sent, and the accommodation, available for the district, afforded by it. Mark (H) the locality in which it is situated, or if not within the district, state where it is situated, and in what district. The name of the authority by whom the hospital is provided should also be given. Mark (W) the locality in which a workhouse is situated.

* This space may be used for record of other disease the notification (compulsory or voluntary) of which is in force in the district.

† These age columns for notifications should be filled up in all cases where the Medical Officer of Health, by inquiry or otherwise, has obtained the necessary information.

*** Column 8 should be filled up with the Totals of cases removed to Hospital, whether the District is divided into separate localities or is treated as one undivided area.

Isolation Hospital.—Name and Situation, Borough Sanatorium for Infectious Diseases, Ford, provided by the Corporation of the County Borough of Sunderland. Total available beds, 90. Number of Diseases that can be concurrently treated, 3.

LOCAL GOVERNMENT BOARD TABLE IV.
Showing Causes of and Ages at Death during Year 1910.

Causes of Death.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Resi- dents" belong- ing to localities, whether occur- ing in or beyond the District.			Deaths in Public Institu- tions.
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Sunderland East.	Sunderland West	Sunderland North.	
Smallpox .....	...	...	...	...	...	...	...	...	...	...	...
Measles	59	10	48	1	...	...	...	29	20	10	4
Scarlet fever	14	1	8	4	1	...	...	5	4	5	11
Whooping Cough	45	19	23	3	...	...	...	20	15	10	2
Diphtheria (including Membranous croup)	23	...	19	3	...	1	...	7	11	5	1
Croup	1	...	1	...	...	...	...	...	...	1	...
Fever { Typhus .....	...	...	...	...	...	...	...	...	...	...	...
	11	...	...	1	7	3	...	4	5	2	8
	Other continued .	...	...	...	...	...	...	...	...	...	...
Epidemic influenza	12	...	...	...	1	2	9	6	4	2	2
Cholera .....	...	...	...	...	...	...	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa. (<i>See notes at back</i>)	77	40	30	...	...	3	4	44	17	16	...
Enteritis. (do).....	29	16	3	1	1	5	3	12	10	7	...
Gastritis. (do).....	23	12	4	1	...	3	3	19	4	...	...
Puerperal fever. (do.).....	5	...	...	...	1	4	...	2	3	...	1
Erysipelas.....	2	...	...	...	...	1	1	2	...	...	2
Phthisis,(Pulmonary Tuberculosis)	193	1	4	18	36	131	3	89	65	39	51
Other tuberculous diseases	86	14	34	19	6	12	1	22	40	24	8
Cancer, malignant disease (<i>See notes at back</i>)	123	...	...	...	...	83	40	44	57	22	24
Bronchitis	275	78	48	5	2	56	86	145	88	42	19
Pneumonia	192	31	53	7	11	69	21	82	70	40	44
Pleurisy	5	...	...	1	...	2	2	2	3	...	2
Other diseases of Respir- atory organs	12	3	4	...	...	3	2	3	7	2	...
Alcoholism—(Cirrhosis of Liver)	14	...	...	...	...	13	1	4	6	4	...
Venereal Diseases	6	6	...	...	...	...	...	3	3	...	...
Premature Birth.....	94	...	...	...	...	...	...	31	40	23	...
Diseases and Accidents of Parturition	9	...	...	...	3	6	...	3	2	4	...
Heart Diseases	214	...	1	3	3	111	96	100	85	29	36
Accidents	82	12	15	5	10	27	13	33	27	22	26
Suicides.....	14	...	...	...	...	13	1	5	5	4	...
All other Causes.....	928	345	74	22	26	241	314	373	351	204	259
All Causes	2548	588	369	94	108	789	600	1089	942	517	503

NOTES TO TABLES IV. AND V.

- (A) In Table IV., all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be INCLUDED with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, to be INCLUDED among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the districts are in like manner to be EXCLUDED from columns 2-8 and 9-15 of Table IV.
- (B) See notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" in Table IV. should be the same as those in Tables II. and III.
- (C) All deaths occurring in public institution situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (A), to be entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.
- (D) The total deaths in the several "Localities" in columns 9-15 of Table IV. should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of Table IV. should equal the gross total of columns 9-15, and the figures for the year in column 12 of Table I.
- (E) Under the heading of "Diarrhœa" are to be included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery and Dysenteric diarrhœa, Choleraic diarrhœa, Cholera (other than Asiatic or epidemic) and Cholera Nostras.
- Deaths from diarrhœa secondary to some well defined disease should be included under the latter.
- Deaths from Enteritis, Muco-Enteritis, Gastro-Enteritis, and Gastritis (see under the heading Diarrhœal Diseases in Table V). in Tables IV. and V. should be placed immediately below, but separately from, those enumerated under the heading Diarrhœa as defined by enumeration above. This is particularly important for deaths under one year of age, as many of the deaths in infancy returned as due to Enteritis are really caused by Epidemic Diarrhœa. In the course of years, by the adoption of this recommendation, it will be practicable to ascertain the probable amount of transfer between these different headings.
- (F) Under the headings of "Cancer" and "Puerperal fever" should be included all registered deaths from causes comprised within these general terms. Thus Under "Cancer" should be included deaths from Cancer, Carcinoma, Malignant disease, Scirrhus, Epithelioma, Sarcoma, Villous tumour, and Papilloma of bladder, Rodent ulcer. Under "Puerperal Fever" are to be included deaths from Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis, Peri, and Endo-Metritis occurring in the Puerperium.
- (G) Under "Congenital Defects" in Table V. are to be included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.
- (H) Under "Tuberculosis Meningitis" are to be included deaths from Acute hydrocephalus.
- (I) Under "Other Tuberculous Diseases" are to be included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scofula.
- (J) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified".

TABLE V.
WHOLE BOROUGH.

Infantile Mortality during the Year 1910.

Deaths from stated Causes in Weeks and Months under One Year of Age.

(See Notes at back of Table IV.)

CAUSE OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 year.
All Causes { Certified	139	36	33	19	227	49	51	48	32	29	19	19	24	26	25	30	579
Uncertified	3	..	..	1	4	..	..	2	..	..	1	..	1	..	..	1	9
Common Infectious Diseases.																	
Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .....	..	..	..	..	..	..	..	..	..	..	1	..	2	1	4	2	10
Scarlet Fever .....	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Diphtheria (including Membranous Croup) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough .....	..	..	..	..	..	3	4	1	4	1	1	1	1	1	1	1	19
Diarrhœal Diseases.																	
(See Notes to Table IV.)																	
Diarrhœa, all forms ...	..	..	2	1	3	..	10	5	3	5	4	1	3	1	4	1	40
Enteritis, Muco-enteritis	..	..	..	1	1	1	2	5	..	2	2	1	..	..	1	1	16
Gastro-enteritis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gastritis, Gastro-intestinal Catarrh ...	..	..	1	2	3	..	1	1	1	2	1	..	..	..	1	2	12
Wasting Diseases.																	
Premature Birth	71	7	7	3	88	4	1	..	..	1	..	..	..	..	..	..	94
Congenital Defects (See Notes to Table IV.)	10	3	2	..	15	..	3	1	1	..	..	..	..	..	..	..	20
Injury at Birth	7	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	7
Want of Breast-milk ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Starvation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility, Marasmus	42	18	12	6	78	21	15	11	5	4	4	5	4	5	2	3	157
Tuberculous Diseases.																	
Tuberculous Meningitis (See Notes to Table IV.)	..	..	..	..	..	..	1	1	..	1	..	..	1	1	1	1	7
Tuberculous Peritonitis; Tabes Mesenterica ...	..	..	..	..	..	..	..	1	..	1	..	2	..	1	..	1	6
Other Tuberculous Diseases (See Notes to Table IV.)	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	2
Other Causes.																	
Erysipelas .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis .....	..	..	1	..	1	4	..	..	1	..	..	..	..	..	..	..	6
Rickets .....	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	1	4
Meningitis (not Tuberculous) .....	..	..	..	..	..	1	1	..	..	..	..	2	2	3	1	2	12
Convulsions	8	4	3	3	18	..	3	4	2	2	..	..	..	..	..	1	30
Bronchitis .....	..	2	4	3	9	10	5	12	7	6	3	3	3	4	6	10	78
Laryngitis .....	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	3
Pneumonia .....	..	..	1	..	1	2	4	2	2	1	2	1	3	6	3	4	31
Suffocation, overlying	1	2	..	..	3	2	1	1	2	..	..	..	..	..	..	..	9
Other causes	3	..	..	1	4	1	..	4	1	3	2	2	5	..	1	1	24
	142	36	33	20	231	49	51	50	32	29	20	19	25	26	25	31	588

Population (estimated to middle of 1910), 160,785.

Births in the Year. { Legitimate4415
 { Illegitimate ... 167

Deaths from all causes at all ages, 2,548.

LOCAL GOVERNMENT BOARD.

TABLE V. (A.)

SUNDERLAND EAST SUB-DISTRICT.

Infantile Mortality during the Year 1910.

Deaths from stated Causes in Weeks and Months under one Year of age.

(See Notes at back of Table IV.)

CAUSE OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 year.
All Causes	Certified	45	11	12	8	76	20	25	22	19	13	6	10	7	10	13	15	236
	Uncertified .	1	..	..	1	2	..	..	1	..	..	..	..	..	..	..	..	3
Common Infectious Diseases																		
	Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
	Scarlet Fever.....	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	Diphtheria (including Membranous Croup ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough .....	..	..	..	..	..	1	..	..	2	..	1	1	..	1	..	1	7
Diarrhœal Diseases.																		
	Diarrhœa, all forms ...	..	..	1	1	2	..	3	4	1	3	1	1	2	..	2	1	20
	Enteritis, Muco-enteritis Gastro-enteritis .....	..	..	..	..	..	..	2	1	..	1	..	1	..	..	..	1	6
	Gastritis, Gastro-intestinal Catarrh .....	..	..	1	2	3	..	1	1	1	2	..	..	..	..	1	1	10
Wasting Diseases.																		
	Premature Birth.....	23	3	2	..	28	2	..	..	..	1	..	..	..	..	..	..	31
	Congenital Defects (See Notes to Table IV.)	3	..	..	..	3	..	1	..	..	..	..	..	..	..	..	..	4
	Injury at Birth	4	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	4
	Want of Breast-milk, Starvation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Atrophy, Debility, Marasmus	11	5	3	1	20	8	9	5	1	2	1	3	..	1	..	1	51
Tuberculous Diseases.																		
	Tuberculous Meningitis (See Notes to Table IV.)	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
	Tuberculous Peritonitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Tabes Mesenterica .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Tuberculous Diseases (See Notes to Table IV.) .....	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	2
Other Causes.																		
	Erysipelas.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis .....	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	3
	Rickets .....	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	3
	Meningitis (<i>not Tuberculous</i>) .....	..	..	..	..	..	1	1	..	..	..	..	1	..	2	1	1	7
	Convulsions	4	3	3	3	13	..	1	1	2	..	..	..	..	..	..	..	17
	Bronchitis .....	..	..	2	2	4	5	4	7	6	1	1	2	2	2	5	7	46
	Laryngitis.....	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
	Pneumonia .....	..	..	..	..	..	..	3	..	2	1	2	..	1	1	1	1	12
	Suffocation, overlying ..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	2
	Other causes .....	..	..	..	..	..	..	..	3	1	2	..	..	2	..	..	..	8
		46	11	12	9	78	20	25	23	19	13	6	10	7	10	13	15	239

Population (estimated to middle of 1910), 59,468.

Births in the	{ Legitimate	1673
Year.	{ Illegitimate	51

Deaths from all causes at all ages, 1,089.

LOCAL GOVERNMENT BOARD.
TABLE V. (B.)
SUNDERLAND WEST SUB-DISTRICT.
Infantile Mortality during the Year 1910.

Deaths from stated Causes in Weeks and Months under One Year of Age.
(See notes at back of Table IV.)

CAUSE OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 year.
All Causes { Certified ...	60	16	14	6	96	17	16	15	10	13	9	4	7	8	8	13	216
{ Uncertified .	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	3
Common Infectious Diseases.																	
Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .....	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	1	4
Scarlet Fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough .....	..	..	..	..	..	2	3	..	2	1	..	..	1	..	..	..	9
Diarrhœal Diseases. (See Notes to Table IV.)																	
Diarrhœa, all forms ...	..	..	1	..	1	..	3	1	1	1	2	..	..	1	1	..	11
Enteritis, Muco-enteritis	..	..	..	1	1	..	..	2	..	1	1	..	..	..	..	..	5
Gastro-enteritis .....	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	2
Gastritis, Gastro-intestinal Catarrh .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wasting Diseases.																	
Premature Birth.....	33	3	2	1	39	..	1	..	..	..	..	..	..	..	..	..	40
Congenital Defects																	
(See Notes to Table IV.)	3	3	1	..	7	..	1	..	1	..	..	..	..	..	..	..	9
Injury at Birth	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2
Want of Breast-milk, Starvation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility, .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Marasmus	18	7	7	3	35	6	5	5	3	2	2	1	1	3	2	2	67
Tuberculous Diseases.																	
Tuberculous Meningitis																	
(See Notes to Table IV.)	..	..	..	..	..	..	1	1	..	1	..	..	1	..	1	1	6
Tuberculous Peritonitis :																	
Tabes Mesenterica .....	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2
Other Tuberculous Diseases (See Notes to Table IV.) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Causes.																	
Erysipelas.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis .....	..	..	1	..	1	1	..	..	1	..	..	..	..	..	..	..	3
Rickets .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Meningitis (not Tuberculous) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Convulsions	2	..	..	..	2	..	1	..	..	2	..	..	..	..	..	1	6
Bronchitis .....	..	2	2	1	5	5	..	3	1	4	1	..	1	..	1	3	24
Laryngitis.....	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	2
Pneumonia .....	..	..	..	..	..	..	..	1	..	..	..	1	1	3	1	2	9
Suffocation, overlying	..	1	..	..	1	2	1	..	..	..	..	..	..	..	..	..	4
Other causes	2	..	..	..	2	1	..	1	..	1	2	1	2	..	1	1	12
	60	16	14	6	96	17	16	15	10	13	10	4	8	8	8	14	219

Population(estimated to middle of 1910), 66,076.

Births in the { Legitimate1645
Year. { Illegitimate 76

Deaths from all causes at all ages, 942.

LOCAL GOVERNMENT BOARD.

TABLE V. (C).

SUNDERLAND NORTH SUB-DISTRICT.

Infantile Mortality during the Year 1910.

Deaths from stated Causes in Weeks and Months under One Year of Age.

(See Notes at back of Table IV.)

CAUSE OF DEATH.		Under 1 week	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 year.
All Causes	Certified ..	34	9	7	5	55	12	10	11	3	3	4	5	10	8	4	2	127
	Uncertified ..	2	..	..	..	2	..	..	1	..	..	..	..	..	..	..	..	3
Common Infectious Diseases.																		
Small-pox .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .....		..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2
Scarlet Fever.....		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Membranous Croup ...		..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	3
Whooping Cough .....		..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	3
Diarrhoeal Diseases																		
(See Notes to Table IV.)																		
Diarrhœa, all forms ...		..	..	..	..	..	..	4	..	1	1	1	..	1	..	1	..	9
Enteritis, Muco-enteritis		..	..	..	..	..	1	..	2	..	..	1	..	..	..	1	..	5
Gastro-enteritis .....		..	..	..	..	..	1	..	2	..	..	1	..	..	..	1	..	5
Gastritis, Gastro-intestinal Catarrh .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wasting Diseases.																		
Premature Birth.....		15	1	3	2	21	2	..	..	..	..	..	..	..	..	..	..	23
Congenital Defects		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(See Notes to Table IV.)		4	..	1	..	5	..	1	1	..	..	..	..	..	..	..	..	7
Injury at Birth		1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Want of Breast-milk,		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Starvation .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility,		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Marasmus		13	6	2	2	23	7	1	1	1	..	1	1	3	1	..	..	39
Tuberculous Diseases.																		
Tuberculous Meningitis		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(See Notes to Table IV.)		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculous Peritonitis :		..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	1	4
Tabes Mesenterica .....		..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	1	4
Other Tuberculous Diseases (See Notes on Table IV.)		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Causes.																		
Erysipelas .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets .....		..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Meningitis (not Tuberculous) .....		..	..	..	..	..	..	..	..	..	..	..	1	2	1	..	..	4
Convulsions		2	1	..	..	3	..	1	3	..	..	..	1	2	1	..	..	7
Bronchitis .....		..	..	..	..	..	..	1	2	..	1	1	1	..	2	..	..	8
Laryngitis ..		..	..	..	..	..	..	1	1	..	..	..	..	1	2	1	1	10
Pneumonia .....		..	..	1	..	1	2	1	1	..	..	..	..	1	2	1	1	10
Suffocation, overlying		..	1	..	..	1	..	..	1	1	..	..	..	..	..	..	..	3
Other causes		1	..	..	1	2	..	..	..	..	..	..	1	1	..	..	..	4
		36	9	7	5	57	12	10	12	3	3	4	5	10	8	4	2	130

Population (estimated to middle of 1910), 35,241.

Births in the	{ Legitimate	1097
Year.	{ Illegitimate	40

Deaths from all causes at all ages, 517.

TABLE VI.

SHOWING DEATHS FROM ALL CAUSES DURING THE YEAR 1910.

CAUSES OF DEATH.	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upwards.	Totals.
Smallpox { Vaccinated
Unvaccinated
No Statement
Measles ..	10	48	1	..	..	..	..	..	..	..	..	..	59
Scarlet Fever ..	1	8	4	1	..	..	..	..	..	..	..	..	14
Typhus Fever
Epidemic Influenza	1	..	1	..	1	4	4	1	..	12
Whooping Cough ..	19	23	3	..	..	..	..	..	..	..	..	..	45
Diphtheria, Membranous Croup	19	3	..	1	..	..	..	..	..	..	..	23
Enteric Fever	1	7	2	..	1	..	..	..	..	..	11
Asiatic Cholera
Diarrhœa, Dysentry ..	34	25	..	..	1	1	1	..	1	2	..	..	65
Epidemic or Zymotic Enteritis ..	6	5	..	..	..	..	..	..	1	..	..	..	12
Other Allied Diseases
Hydrophobia
Glanders, Farcy
Tetanus	1	..	..	..	..	..	..	..	..	1
Anthrax, Splenic Fever
Cowpox, Accidents of Vaccination
Syphilis ..	6	..	..	..	..	..	..	..	..	..	..	..	6
Gonorrhœa
Phagedœna
Erysipelas	1	1	..	..	..	2
Puerperal Fever	1	4	..	..	..	..	..	..	..	5
Pyæmia, Septicæmia	1	..	..	..	..	1
Infective Endocarditis
Other Allied Diseases	1	..	..	..	..	..	..	1
Malarial Fever
Rheumatic Fever	1	..	1	..	..	..	1	..	..	..	3
Rheumatism of the Heart
Tuberculosis of Brain or Meninges,
Acute Hydrocephalus ..	7	14	7	1	..	..	..	..	..	..	..	..	29
Tuberculosis of Larynx	1	1	..	..	..	..	..	2
Tuberculosis of Lungs ..	1	4	18	36	48	41	23	19	3	..	..	..	193
Tuberculosis of Intestines, Tabes Mesenterica ..	6	10	10	..	..	..	..	..	..	..	..	..	26
General Tuberculosis, Tubercular Disease of Undefined Position ..	1	10	1	3	1	3	..	2	1	..	..	..	22
Other Forms of Tuberculosis, Scofula	1	2	1	1	2	..	..	..	..	..	7
Other Infective Diseases.
Thrush
Actinomycosis
Hydatid Diseases
Scurvy
Other Diseases due to altered Food
Acute Alcoholism, Delirium Tremens	1	..	..	..	..	..	1
Chronic Alcoholism	2	..	..	..	..	2
Chronic Industrial Poisoning
Other Chronic Poisonings
Osteo-arthritis, Rheumatoid Arthritis	1	..	..	..	1	3	..	..	..	5
Gout
Cancer	7	11	22	43	28	11	1	..	123
Diabetes Mellitus	1	1	1	2	7	1	4	2	..	..	19
Purpura Hæmorrhagica	1	1	1	..	..	..	..	..	..	..	..	3
Hæmophilia
Anæmia, Leucocythæmia	1	3	1	3	..	..	..	8
Lymphadenoma, Hodgkin's Disease	1	..	1	..	1	..	1	..	..	..	..	4
Myxodema	1	..	..	..	..	1

TABLE VI.—CONTINUED.

CAUSES OF DEATH.	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upwards.	Totals.
Premature Birth	94	..	..	..	..	..	..	..	..	..	..	..	94
Injury at Birth	7	..	..	..	..	..	..	..	..	..	..	..	7
Debility at Birth	80	..	..	..	..	..	..	..	..	..	..	..	80
Atelectasis	9	..	..	..	..	..	..	..	..	..	..	..	9
Congenital Defects	13	1	..	..	..	..	..	..	..	..	..	..	14
Want of Breast Milk .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility, Marasmus	77	21	..	..	..	..	..	..	..	..	..	..	98
Dentition	7	9	..	..	..	..	..	..	..	..	..	..	16
Rickets	4	4	..	..	..	..	..	..	..	..	..	..	8
Old Age, Senile Decay .. .. .	..	..	..	..	..	..	..	9	58	87	32	..	186
Convulsions	30	8	..	..	..	..	..	..	..	..	..	..	38
Meningitis	12	16	4	1	..	1	2	..	..	..	..	..	36
Encephalitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Apoplexy .. .. .	..	..	..	..	1	6	20	31	37	20	2	..	117
Softening of Brain .. .. .	..	..	..	..	..	1	..	2	1	..	..	..	4
Hemiplegia, Brain Paralysis .. .. .	..	..	..	..	..	1	5	5	3	4	..	..	18
General Paralysis of the Insane .. .. .	..	..	..	..	..	2	3	..	..	..	..	..	5
Other Forms of Insanity .. .. .	..	..	..	..	1	3	1	5	4	1	1	..	16
Chorea .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebral Tumour .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy .. .. .	..	..	1	3	..	1	..	1	..	..	..	..	6
Laryngismus Stridulus .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Locomotor Ataxy .. .. .	..	..	..	..	1	..	2	..	..	..	..	..	3
Paraplegia, Diseases of Spinal Cord .. .. .	..	..	..	1	..	1	6	4	1	..	..	..	13
Other and Ill-defined Diseases of Brain or Nervous System .. .. .	..	2	..	..	..	2	2	3	..	..	..	..	9
Otitis, Otorrhœa	2	..	1	1	..	..	1	..	..	..	..	..	5
Diseases of Nose, Epistaxis .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	1
Diseases of Eye, Ophthalmia .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Endocarditis, Valvular Diseases of Heart .. .. .	..	1	1	1	5	2	15	14	18	1	..	..	58
Pericarditis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Hypertrophy of Heart .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	1
Angina Pectoris .. .. .	..	..	..	..	1	3	2	1	..	..	..	..	7
Aneurism .. .. .	..	..	..	..	..	..	..	1	2	4	1	..	8
Senile Gangrene .. .. .	..	..	1	..	1	..	3	..	..	2	..	..	7
Embolism, Thrombosis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Phlebitis .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	1
Varicose Veins .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Other and Ill-defined Diseases of Heart and Circulatory System .. .. .	..	..	2	2	8	12	28	26	47	26	4	..	155
Laryngitis	3	3	..	..	..	1	..	..	2	..	..	..	9
Croup .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	1
Other Diseases of Larynx and Trachea .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Bronchitis	78	48	5	2	1	6	9	21	32	19	3	..	224
Chronic Bronchitis .. .. .	..	..	..	..	1	1	1	16	24	8	..	..	51
Lobar Croupous Pneumonia .. .. .	..	2	..	1	3	6	4	3	..	..	..	..	19
Lobular Broncho-Pneumonia	19	30	4	1	1	1	..	1	1	1	..	..	59
Pneumonia, form not stated	12	21	3	9	4	10	19	17	14	5	..	..	114
Emphysema, Asthma .. .. .	..	..	..	..	..	..	1	1	..	..	..	..	2
Pleurisy .. .. .	..	..	1	..	..	..	1	1	..	1	1	..	5
Other and Ill-defined Diseases of the Respiratory System .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Mouth and Annæa	1	..	..	..	..	..	..	..	..	..	..	..	1
Diseases of Pharynx .. .. .	..	..	..	..	..	1	..	..	..	..	..	..	1
Diseases of Œsophagus .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	1
Ulcer of Stomach and Duodenum .. .. .	..	..	1	3	1	1	1	4	..	..	..	..	11
Other Diseases of Stomach	12	4	1	..	1	2	2	1	3	..	..	..	26
Enteritis	16	3	1	1	..	1	3	1	3	..	..	..	29
Appendicitis .. .. .	..	..	4	4	..	..	1	1	..	..	..	..	10
Obstruction of Intestine	2	4	..	..	1	1	1	4	3	1	..	..	17
Other Diseases of Intestine	1	..	..	..	..	..	..	..	1	..	..	..	2
Cirrhosis of Liver .. .. .	..	..	..	..	..	1	3	6	1	..	..	..	11
Other Diseases of Liver .. .. .	..	..	..	1	..	..	3	2	2	2	..	..	10
Peritonitis .. .. .	..	..	..	1	..	..	1	1	3	..	..	..	6
Other and Ill-defined Diseases of Digestive System .. .. .	..	..	1	..	1	..	1	..	..	..	..	..	3

TABLE VI.—CONTINUED.

CAUSES OF DEATH.	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upwards.	Totals.
Diseases of Lymphatic System and Ductless Glands..	1	..	1	..	1	..	..	..	3
Acute Nephritis ..	2	6	2	4	3	6	3	1	2	..	..	..	29
Bright's Disease	2	2	7	8	8	13	3	..	..	43
Calculus	2	..	..	..
Diseases of Bladder and Prostate	1	..	..	5	2	..	..	8
Other and Ill-defined Diseases of Urinary System
Diseases of Testis and Penis	1	..	..	1	..	..	..	2
Diseases of Ovaries	1	..	..	..	..	..	..	1
Diseases of Uterus and Appendages	1	..	..	..	..	..	1
Diseases of Vagina and External Genital Organs
Diseases of Breast
Abortion, Miscarriage
Puerperal Mania
Puerperal Convulsions	2	1	..	..	..	..	..	..	..	3
Placenta Prævia, Flooding	2	..	..	..	..	..	..	2
Puerperal Thrombosis	1	1	..	..	..	..	..	..	..	2
Other and Ill-defined Accidents and Diseases of Pregnancy and Child Birth	2	..	..	..	..	..	..	..	2
Arthritis, Ostitis, Periostitis	1	..	..	..	..	..	..	..	..	..	1
Other and Ill-defined Diseases of the Osseous System ..	1	..	..	..	..	..	..	..	..	..	..	..	1
Ulcer, Bed sore
Eczema
Pemphigus
Other and Ill-defined Diseases of Integumentary System ..	2	..	..	..	..	..	..	..	2	..	..	..	4
Accident or Negligence—													
In Mines and Quarries	3	2	1	1	..	..	..	..	..	7
In Vehicular Traffic	1	..	..	..	1	..	..	..	..	..	..	2
On Railways	1	..	..	..	..	..	..	1
On Ships, Boats, and Docks (excluding Drowning)	2	..	..	3	..	..	..	..	..	5
In Building Operations	1	..	..	..	..	1
By Machinery
By Weapons and Implements
Burns and Scalds..	1	11	2	1	..	1	..	..	1	1	..	..	18
Poisons, Poisonous Vapours
Surgical Narcosis
Effects of Electric Shock
Corrosion by Chemicals
Drowning	1	1	2	1	1	..	1	..	..	..	..	7
Suffocation, Overlaid in Bed ..	9	..	..	..	..	..	..	..	..	..	..	..	9
Suffocation, otherwise ..	1	..	..	..	..	1	..	1	1	..	..	..	4
Falls, not Specified ..	1	2	1	..	2	4	..	1	1	3	4	..	19
Weather Agencies..	1	1	..	..	..	2
Otherwise, and not stated	1	2	..	1	..	2	1	..	..	..	7
Found Drowned	1	..	2	..	..	..	..	..	3
Homicide	1	3	..	1	1	..	2	..	..	..	..	8
Suicides—													
By Poison	1	..	..	..	..	..	1
By Asphyxia	1	..	..	..	..	..	..	..	1
By Hanging and Strangulation	1	..	2	3	1	..	..	..	7
By Drowning	1	..	..	..	..	..	1
By Shooting	1	1	..	..	..	..	..	..	2
By Cut or Stab	1	..	..	..	..	..	..	1
By Precipitation from Elevated Places	1	..	..	..	..	1
By Crushing
By other and unspecified Methods
Execution
Sudden Death (Cause not Ascertained) ..	1	..	..	..	..	..	..	..	..	..	..	..	1
Other Ill-defined and not Specified Causes	1	..	..	..	..	1
TOTALS ..	588	369	94	108	119	163	225	282	340	210	50	..	2548

TABLE VIA.
SHOWING THE DEATHS FROM ALL CAUSES REGISTERED IN
EACH DISTRICT, 1910.

CAUSES OF DEATH.	Sunderland East.				Sunderland West.				Sunderland North.				Totals.
	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	
Smallpox { Vaccinated
{ Unvaccinated
{ No Statement
Measles	4	24	1	29	4	16	..	20	2	8	..	10	59
Scarlet Fever	1	2	2	5	..	3	1	4	..	3	2	5	14
Typhus Fever
Epidemic Influenza	6	6	..	..	4	4	..	..	2	2	12
Whooping Cough	7	12	1	20	9	5	1	15	3	6	1	10	45
Diphtheria, Membranous Croup	7	..	7	..	10	1	11	..	2	3	5	23
Enteric Fever	4	4	..	..	5	5	..	..	2	2	11
Asiatic Cholera
Diarrhoea, Dysentry	18	18	5	41	10	3	..	13	6	4	1	11	65
Epidemic or Zymotic Enteritis	2	1	..	3	1	3	..	4	3	1	1	5	12
Other Allied Diseases
Hydrophobia
Glanders, Farcy
Tetanus	1	1	..	..	..	..	..	..	..	..	1
Anthrax, Splenic Fever
Cowpox, Accidents of Vaccination
Syphilis	3	..	..	3	3	..	..	3	..	..	..	..	6
Gonorrhoea
Phagedæna
Erysipelas	2	2	..	..	..	..	..	..	..	..	2
Puerperal Fever	2	2	..	..	3	3	..	..	..	..	5
Pyæmia, Septicæmia	1	1	..	..	..	1
Infective Endocarditis
Other Allied Diseases	1	1	..	..	..	..	..	..	..	..	1
Malarial Fever
Rheumatic Fever	2	2	..	..	1	1	..	..	..	..	3
Rheumatism of the Heart
Tuberculosis of Brain or Meninges, Acute Hydrocephalus	1	3	4	8	6	10	4	20	..	1	..	1	29
Tuberculosis of Larynx	2	2	..	..	..	..	2
Tuberculosis of Lungs	1	2	86	89	..	2	63	65	..	..	39	39	193
Tuberculosis of Intestines, Tabes Mesenterica	3	3	6	2	2	2	6	4	5	5	14	26
General Tuberculosis, Tubercular Disease of Undefined Position	1	2	2	5	..	6	4	10	..	2	5	7	22
Other forms of Tuberculosis, Scofula	3	3	..	..	2	2	..	..	2	2	7
Other Infective Diseases
Thrush
Actinomycosis
Hydatid Diseases
Scurvy
Other Diseases due to altered Food
Acute Alcoholism, Delirium Tremens	2	2	..	..	1	1	..	..	..	..	1
Chronic Alcoholism	2	2	..	..	..	..	..	..	..	..	2
Chronic Industrial Poisoning
Other Chronic Poisonings
Osteo-arthritis, Rheumatoid Arthritis	2	2	..	..	3	3	5
Gout
Cancer	44	44	..	..	57	57	..	..	22	22	123
Diabetes Mellitus	10	10	..	..	7	7	..	..	2	2	19
Purpura Hæmorrhagica	1	1	2	..	..	1	1	..	..	..	..	3
Hæmophilia
Anæmia, Leucocythæmia	4	4	..	..	4	4	..	..	..	..	8
Lymphadenoma, Hodgkin's Disease	1	1	2	..	..	1	1	..	..	1	1	4
Myxœdema	1	1	..	..	..	..	1

TABLE VIA.—CONTINUED.

CAUSES OF DEATH.	Sunderland East.				Sunderland West.				Sunderland North.				Totals.
	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	
Premature Birth	31	..	..	31	40	..	..	40	23	..	..	23	94
Injury at Birth	4	..	..	4	2	..	..	2	1	..	..	1	7
Debility at Birth	22	..	..	22	41	..	..	41	17	..	..	17	80
Ateleetasis	2	..	..	2	4	..	..	4	3	..	..	3	9
Congenital Defects	2	..	..	2	7	..	..	7	4	1	..	5	14
Want of Breast Milk .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility, Marasmus	29	9	..	38	26	8	..	34	22	4	..	26	98
Dentition	3	5	..	8	2	1	..	3	2	3	..	5	16
Rickets	2	..	..	2	1	1	..	2	1	3	..	4	8
Old Age, Senile Decay .. .. .	..	..	83	83	..	..	63	63	..	..	40	40	186
Convulsions	17	6	..	23	6	2	..	8	7	..	..	7	38
Meningitis	7	7	3	17	1	7	3	11	4	2	2	8	36
Encephalitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Apoplexy .. .. .	..	..	50	50	..	..	40	40	..	..	27	27	117
Softening of Brain .. .. .	..	..	1	1	..	..	3	3	..	..	..	..	4
Hemiplegia, Brain Paralysis .. .. .	..	..	8	8	..	..	9	9	..	..	1	1	18
General Paralysis of the Insane .. .. .	..	..	..	..	..	..	2	2	..	..	3	3	5
Other Forms of Insanity .. .. .	..	..	9	9	..	..	5	5	..	..	2	2	18
Chorea .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebral Tumour .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy .. .. .	..	..	3	3	..	..	2	2	..	..	1	1	6
Laryngismus Stridulus .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Locomotor Ataxy .. .. .	..	..	1	1	..	..	2	2	..	..	..	..	3
Parplegia, Diseases of Spinal Cord. .. .. .	..	..	4	4	..	..	6	6	..	..	3	3	13
Other and Ill-defined Diseases of Brain or Nervous System .. .. .	..	..	1	1	..	2	2	4	..	..	4	4	9
Otitis, Otorrhœa .. .. .	..	..	1	1	2	..	1	3	..	..	1	1	5
Diseases of Nose, Epistaxis .. .. .	..	1	..	1	..	..	..	..	..	..	..	..	1
Diseases of Eye, Ophthalmia .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Endocarditis, Valvular Diseases of Heart .. .. .	..	1	20	21	..	..	26	26	..	..	11	11	58
Pericarditis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Hypertrophy of Heart .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Angina Pectoris .. .. .	..	..	1	1	..	..	..	..	..	..	..	..	1
Aneurism .. .. .	..	..	4	4	..	..	3	3	..	..	..	..	7
Senile Ganrene .. .. .	..	..	3	3	..	..	4	4	..	..	1	1	8
Embolism, Thrombosis .. .. .	..	..	2	2	..	..	3	3	..	..	2	2	7
Phlebitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Varicose Veins .. .. .	..	..	..	..	..	..	1	1	..	..	..	..	1
Other and Ill-defined Diseases of Heart and Circulatory System .. .. .	..	..	78	78	..	..	59	59	..	..	18	18	155
Laryngitis	1	2	..	3	2	..	3	5	..	1	..	1	9
Croup .. .. .	..	..	..	..	..	..	..	..	..	1	..	1	1
Other Diseases of Larynx and Trachea .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Bronchitis	46	28	55	129	24	13	33	72	8	5	10	23	224
Chronic Bronchitis .. .. .	..	..	16	16	..	..	16	16	..	..	19	19	51
Lobar Croupous Pneumonia .. .. .	..	1	5	6	..	..	11	11	..	1	1	2	19
Lobular Broncho-Pneumonia	7	13	3	23	5	9	5	19	7	8	2	17	59
Pneumonia, form not stated	5	12	36	53	4	8	28	40	3	1	17	21	114
Emphysema, Asthma .. .. .	..	..	..	..	..	..	2	2	..	..	..	..	2
Pleurisy .. .. .	..	..	2	2	..	..	3	3	..	..	..	..	5
Other and Ill-defined Diseases of the Respiratory System .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of Mouth and Annexa	1	..	..	1	..	..	..	..	..	..	..	..	1
Diseases of Pharynx .. .. .	..	..	..	..	..	..	1	1	..	..	..	..	1
Diseases of Oesophagus .. .. .	..	..	..	..	..	..	4	4	..	..	..	..	1
Ulcer of Stomach and Duodenum .. .. .	..	..	5	5	..	..	1	1	..	..	2	2	11
Other Diseases of the Stomach	10	4	6	20	2	..	3	5	..	..	1	1	26
Enteritis	6	2	4	12	5	1	4	10	5	..	2	7	29
Appendicitis .. .. .	..	..	2	2	..	..	5	5	..	..	3	3	10
Obstruction of Intestine .. .. .	..	3	4	7	1	..	5	6	1	1	2	4	17
Other Diseases of Intestine .. .. .	..	..	1	1	1	..	..	1	..	..	..	..	2
Cirrhosis of Liver .. .. .	..	..	2	2	..	..	5	5	..	..	4	4	11
Other Diseases of Liver .. .. .	..	..	1	1	..	..	9	9	..	..	..	..	10
Peritonitis .. .. .	..	..	3	3	..	..	2	2	..	..	1	1	6
Other and Ill-defined Diseases of Digestive System .. .. .	..	..	1	1	..	..	1	1	..	..	1	1	3

TABLE VIA.—CONTINUED.

CAUSES OF DEATH.	Sunderland East.				Sunderland West.				Sunderland North.				Totals.
	Under 1.	1 to 5.	Over 5.	Total	Under 1.	1 to 5.	Over 5.	Total	Under 1.	1 to 5.	Over 5.	Total	
Diseases of Lymphatic System and Ductless Glands.	1	1	..	..	1	1	..	..	1	1	3
Acute Nephritis	1	1	8	10	1	4	10	15	..	1	3	4	29
Bright's Disease	16	16	..	..	9	9	..	..	18	18	43
Calculus
Diseases of Bladder and Prostate	3	3	..	..	5	5	..	..	..	..	8
Other and Ill-defined Diseases of of Urinary System
Diseases of Testis and Penis	2	2	..	..	..	..	2
Diseases of Ovaries	1	1	1
Diseases of Uterus and Appendages	1	1	1
Diseases of Vagina and External Genital Organs
Diseases of Breast
Abortion, Miscarriage
Puerperal Mania
Puerperal Convulsions	3	3	..	..	..	..	..	..	..	..	3
Placenta Prævia, Flooding	2	2	2
Puerperal Thrombosis	1	1	..	..	1	1	2
Other and Ill-defined Accidents and Diseases of Pregnancy and Child Birth	1	1	..	..	1	1	2
Arthritis, Ostitis, Periostitis	1	1	..	..	..	..	..	..	..	..	1
Other and Ill-defined Diseases of the Osseous System	1	..	..	1	..	..	..	..	..	..	..	..	1
Ulcer, Bed sore
Eczema
Pemphigus
Other and Ill-defined Diseases of Integumentary System	2	2	2	..	..	2	..	..	..	..	4
Accident or Negligence—
In Mines and Quarries	1	1	..	..	1	1	..	..	5	5	7
In Vehicular Traffic	1	1	..	..	..	..	..	1	..	1	2
On Railways	1	1	..	..	..	..	..	..	..	..	1
On Ships, Boats, and Docks (excluding Drowning)	1	1	..	..	2	2	..	..	2	2	5
In Building Operations	1	1	..	..	..	..	..	..	..	..	1
By Machinery
By Weapons and Implements
Burns and Scalds	1	3	3	7	..	5	2	7	..	3	1	4	18
Poisons, Poisonous Vapours
Surgical Narcosis
Effects of Electric Shock
Corrosion by Chemicals
Drowning	1	5	6	..	..	..	..	..	..	1	1	7
Suffocation, Overlaid in Bed	2	..	..	2	4	..	..	4	3	..	..	3	9
Suffocation, otherwise	2	2	1	..	1	2	..	..	..	..	4
Falls, not Specified	2	6	8	1	..	6	7	..	..	4	4	19
Weather Agencies	1	1	..	..	1	1	2
Otherwise, and not stated	3	3	..	..	3	3	..	..	1	1	7
Found Drowned	2	2	..	..	..	..	..	..	1	1	3
Homicide	2	2	..	1	5	6	..	..	..	..	8
Suicides—
By Poison	1	1
By Asphyxia	1	1	..	..	..	..	1
By Hanging and Strangulation	3	3	..	..	3	3	..	..	1	1	7
By Drowning	1	1	1
By Shooting	2	2	..	..	..	..	..	..	..	..	2
By Cut or Stab	1	1	..	..	..	..	1
By Precipitation from Elevated Places	1	1	1
By Crushing
By other and Unspecified Methods
Execution
Sudden Death (Cause not Ascertained)	1	..	..	1	1
Other Ill-defined and not specified Causes	1	1	..	..	..	..	1
TOTALS	238	177	672	1087	220	124	599	943	130	68	320	518	2548

TABLE VII.

STREETS in which ZYMOTIC DISEASES were known to have occurred in the
Year 1910.

SUNDERLAND EAST.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Addison street	4	1	2	...	1	...	...
Ann street	1	...	...	...	...	...
Athol road	1	...	...	...	...	...	...
Avon street	1
Blandford street	1	...	...	...	...	...	...
Bodlewell lane	1
Borough road	2	...	2	1	...	...	...
Burleigh street	1	...	1	3	1	5
Cairo street	2	...	...	...	...	1
Canon Cockin street	4	1	...	...	...	...	...
Churchill street	1	...	...	...	...	...	1
Clementina street.....	1	1	...	...	...	...	...
Clyde street	1	...	...	...	...	1	1	...	...	...
Commercial road	1
Coronation street	1	...	...	...	...	...	...	1	...	1
Corporation road	1	...	1	...	...	...	...
Cousin street.....	1
Covent Garden street	1	1
Cuba street	1	...	...	...	...	...	...
D'Arcy street	1
D'Arcy terrace	1	...	1
Dunn's passage	1
East Cross street	1	...	...	...	...	1	...	...	...	...
East street	1	...	...	1	...	...
Eastern street.....	1	...	1	...	...	...	...
Eden street	2	...	2	...	...	...	...
Elms West	1	...	...	...	...	...
Emma street.....	1	...	...	...	...	...	...
Fowler terrace	5	1	...	...	...	...	...
Foyle street	1	...	1	1	...	...	...
George street	2
Golden alley	1	...	...
Grange street South	2	...	...	...	...	...	1
Guildford street	1	...	...	...	...	...	...
Harrison buildings	2	...	...	...	...	2	...	...	...	...
Harrogate street	1	1	...	...	...	...	...
Hartley's buildings	1	...	...	...	...	...
Hartley street.....	...	1	...	...	...	1	1	...	...	...	1
Hastings street	1	...	...	...	...	...	...
Hedworth street.....	2	...	1	...	...	...	1
Hendon Burn avenue	1	...	...	...	...	...	...
Hendon road	1	...	1	...	...	...	...
Hendon street	2	...	...	1	...	1
Henry street	2	...	...	...	...	1	1
Henry street East	3	1	1	...	...	...	...
Herrington street	1	1	...	...	...	...	...

TABLE VII.—CONTINUED.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
High street East	5	...	1	...	1	...	...
Hogg's yard	1
Horn's lane.....	2	...	2	...	...	...	...
Hudson Road	3	...	2	...	...	...	...
Hudson's buildings	1	...	...
Hunter terrace	1	...	1	...	...	...	...
Hutchinson terrace	1	...	1	...	...	...	...
Hyde street.....	1	...	1	...	...	...	...
James William street	1	...	1	...	...	...	...
Laura street	2	2	...	...	...	...	...
Lawrence street	3	2	3	...	...	1	2
Lawton street	4	...	...	...	...	...	...
Lodge terrace	1
Low quay	1
Mainsforth terrace	7	...	3	...	...	...	...
Mainsforth terrace West	1	2	1	...	...	...	...
Maling's Rigg	1
Marion street	2	...	1	...	...	...	...
Mark quay	1	...	1	...	...	...	...
Minorca	2	...	2	...	...	...	...
Moorgate street	1	...
Moor street	3	...	...	1	...	...	...
Mordey street	1	...	...	...	...	...	...
Mowbray road	1	...	1	...	...	...	...
Nelson street	2	...	...	...	...	...	...
Nesham square.....	1	...	...	...	...	1
New Grey street	2	...	...	2	...	4	...	...	...	1
Nicholson street	1	...	...	1	...	2	...	...	...	...
Nile street.....	3	1	3	1	...	1	...
Noble street	2	...	1	...	...	...	...
Norfolk street	1	...
Norman street	2	...	...	2	...	4	1	3	...	...
Northcote avenue	2	...	2	...	...	...	...
Northumberland place	1	...	1
Numbers Garth	1	2
Oaks The	1	...	...	...	...	...	...
Ocean road	1	...	...	...	...	...	...
Page street	1	...	1	...	...	1	...
Parade	2	...	...	...	...	...
Park place East	1	1	1	...	...	...	...
Pemberton street	2	...	2	...	...	...	...
Percy terrace	1	...	...	...	...	...	...
Randolph street	1	...	...	...	...	...	...
Robinson street	1	2	1	...	1	...	...
Robinson terrace	1	...	1	...	...	...	...
Rosalie terrace	1
St. Leonard street	6	3	3	1	...	...	...
St. Vincent street	1	...	...	...	...	...	...

TABLE VII.—CONTINUED.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Salisbury street	1	...	...	...	...	...
Sans street	1	...	1	...	3	...	...
Sans street South	1	...
Silver street	1
South Dock Bath Hotel	2	...	...	...	...	...
South Dock Dock House	1	...	...	...	...	...	...
South Durham street	2	...	2	...	...	...	...
Spring Garden lane	1	...	...	...	...	...	1	...	...	...
Stafford street	1	...	...
Suffolk street	1	...	...	...	...	...	...
Sussex street.....	1	1	...
Teasdale street	1	...	1	...	...	...	...
Tel-el-Kebir road	1	1	...	...	1	...	...
Thomas street	1	1	...	...	...	...	...
Thornhill terrace	1	...	...	...	...	...
Tower street West	1	...	1	...	...	...	...
Tyne street	1	...	...	...	...	1	...	...	...	1
Vane terrace	2	...	...	...	...	2	...	...	...	1
Villette road	1	...	...	...	...	...
Villiers street	1	...	...	2	...	...	...	...	2	...
Vine street	2
Wall street	1	...	...	...	...	...
Ward street	3	...	3	...	1	...	...
Ward terrace	3	...	...	...	...	...	...
Warren street	1
Watson's cottages	6	1	5	2	...	...	...
Wear street	2	...	...	...	...	...	1	1	1	...
Whitehouse crescent	1	...	...	...	...	...
William street	1	...	1	...	2	1	...
Windsor terrace	1	...
Woodbine street	1	1	1	...	...	...	...
Workhouse The	1	...	...	...	...	...	...	...	...	...
Zion street	1	...	1	...	...	...	...

TABLE VII.—CONTINUED.

SUNDERLAND WEST.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Ailesbury street	1	..	..	..	..	..
Aiskell street	1	..	..	..	..	..	..
Albert street	1	..	..	..	..	1	..	..	..	..
Alderson street	1	..	..	..	..	..
Alliance street	1	..	1	..	..	..
Anne street	1	..	..	..	1	..	..	..	1	..
Ashwood terrace	1	..	..	..	..	..	..
Australia street	1	..	1	..	..	..
Avenue, The	1	..	..	..	..	..	..
Ayre's Quay road	1	..	..	..	..	1	..	..	..	1
Barnard street	1	..	..	..	..	..	..
Beach street	1	..	..	..	..	..
Beechwood street.....	2	..	1	..	..	..	..
Belle Vue road	1	..	1	..	..	..	..
Bell street	1	1
Bexley street	1	..	..	..	..	..	..
Booth street	1	..	1	..	..	..	..
Brae, The	1	..	..	..	..	..
Brady street	1	..	..	..	..	1	1	..	..	..
Bright row	1
Brookland road	2	..	..	..	..	..
Brougham street	1	..	1	..	..	1	1
Carol street	1	..	1	..	..	..	..
Carter street	2	..	..
Catherine street	1	1	1	..	..	..	..
Cecil street	1	..	1	..	..	..	..
Cedars The	1	..	1	..	..	..	..
Central Fire Station	1	..	..	..	..	..	..
Chester road	2	..	..	7	1	4	..	..	1	..
Chester terrace	1	..	..	..	..	..	..	..	..	..
Clanny street	1	1	1	..	..	..	..
Cleveland road	5	2	2	1	..	..	..
Close street	2	..	..	2	..	..	..
Coatsworth street	1	..	..
Cornwall street	1	..
Cottage Homes.....	2	..	..	..	..	..	..
Crescent row	6	..	6	..	..	..	..
Croft avenue	1	..	1	..	..	..	..
Cromwell street	2	..	2	..	..	..	..
Dene street	2	..	2	..	..	..	..
Deptford terrace	2	..	..	..	..	..
Dunbar street	1	..	..	..	..	..
Dunelm	1	..	..	..	..	..
Dunning street	2	..	..	..	2	2	..	..	..	..
East Moor road	1	..	..	..	..	1	..	..	..	..
Eden House road	1	..	..	..	..	..

TABLE VII.—CONTINUED.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Eldon street	1	1	1	..	..	..	..
Elgin street	1	..	..	1	..	2	1	..	..	..
Esplanade West	1	..	..	..	..	..	..
Evelyn street	1	..	1	..	..	..	..
Ewesley road	4	..	1	..	..	..	..
Exeter street	2	1	2	1	..	..	..
Exhibition terrace	5	1	4	2	..	..	..
Eye Infirmary	1	..	1	..	..	..	..
Farnham terrace	1	..	..	..	..	..	..
Farrington row.....	..	1	..	..	3	..	3	..	..	..	..
Fern street	1	..	..	..	..	..
Fontaine road	1	..	1	..	..	..	..
Fordland place	1	..	1	..	..	..	..
Garnet street	2	..	1	..	..	..	..
George street West	1	..	..	..	..	..
Gill Bridge avenue	1	..	..	..	..	1	1	..	..	..
Gilsland street	3	..	2	..	..	..	..
Glebe street	1	..	..	..	..	..
Granville street	1	..	1	..	..	..	..
Greta terrace	2	..	1	..	..	..	..
Harrison street	2	..	1	..	..	1
Havelock terrace	1	..	..	..	..	..
Hawarden crescent	1	..	1	..	..	..
Hawthorn street	1	..	..	..	..	..	..
Hedley street	1	1	..	..	..	..	..
High street West.....	1	..	..	..	..	..	..
Hillfield	2	..	..	..	..	2	..	..	..	..
Hillfield terrace	1	..	1	..	..	..	..
Holly terrace	1	..	1	..	..	..	..
Hope street	1	..	..	..	1	..
Hopper street	1	..	..	..	1	2	..	1	..	..
Hort street	1	..	..	..	..	..
Houghton street.....	1	..	..	1	1	..
Howarth street.....	2	..	2	..	..	..	..
Hylton road	1	..	1	..	..	..	..
Hylton street	2	1	1	..	..	..	..
Infirmary, The.....	6	..	3	..	..	..	..
Infirmary row	1	..
James street	1	..	1	..	..	..	1
John Candlish road.....	1	..	1	..	..	..	1
Johnson street	1
Kayll road	1	..	..	..	..	..	..
Kings road	1	..	..	..	..	..	..
Kings street	1	..	..	..	1	..	..
Kitchener street	1	..	..	..	..	..
Lily street	1	..	1	..	..	..	..
Lime street	1	..	1	..	..	..	..

TABLE VII.—CONTINUED.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Lisburn terrace	1	..	1	..	..	..	..
Livingstone road	1	..	..
Low row	2	..	..	..	..	..	..
Lumley street	2	..	2	..	..	..	1
McNay's buildings	2	..	2	..	..	..	..
Mafeking street	1	..	..	..	..	..
Maple street	1	..	..
Matamba terrace	1	..	..	..	..	..	..
May street.....	1	..
Milton street	2	..	2	..	..	..	..
Milburn street	1	..
Mount road	1	..	..	..	..	..	..
North Hedley street	1	..	..	..	1	1	..	1	1	..
New Durham road	1	..	..
Nora street	1	..	1	..	..	..
North Milburn street	1	1	..	..	..	..	..
Onslow street	2	1	1	..	..	..	..
Ormonde street	2	..	1	..	..	..	..
Oswald street	1	..	..	..	..	..
Otto terrace	1	..	..	..	..	..	1
Oxford street	1	..	..
Pallion road.	2	..	..	..	..	..
Palmer street	2	..	..	..	1	..	..
Paxton terrace	1
Peacock street	2	..	..	..	..	1	..
Peacock street West	2	..	2	..	..	..	..
Pensher street	1	..	..	..	..	..
Percival street	1	..	..	..	..	..	..
Picton street	1	..	..	..	..	..
Princess street	1	..	..	..	..	..
Queen's crescent	1	..	..	..	..	..	..
Raby street.....	1	..	1	..	..	..
Ravensworth street	1	3	1	..	..	..	..
Reginald street.....	..	2	..	..	2	..	..	..	..	..	..
Riversdale terrace	1	..	..	..	..	..	..
Robert street	1	1	1	..	..	..	..
Ropery road	1	..	..	..	..	..
Rosanna street	2	..	..	..	..	..	..
Rose street	3	..	..	..	..	..
Rosedale street.....	1	..	1	..	..	..	..
Rutland street	1	..	..	3	1	3	1	..	..	2
St. Cuthbert's terrace.....	2	..	1	..	..	..	..
St. Luke's road	4	..	..	..	1	..	..
St. Luke's terrace	1	..	1	..	..	..	1
St. Mark's road	1	..	..	..	..	..
Shepherd street	1	..	1	..	..	..	..
Simpson street	1	..	1	..	..	..	..

TABLE VII.—CONTINUED.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Sorley street	1	...	...	1	1	1	...	...	...	...
South Johnson street	2	...	2	...	1	...	1
Spark terrace	2	...	4	...	...	...	...
Stanley street	2	...	...	...	...	2	...	...	...	...
Stirling street	1	...	...	...	...	...	...
Stockton road.....	2	...	1	...	...	...	...
Sydenham place	1	...	1	...	...	...	...
Teb street	1	...	1	...	...	...	...
Thornhill gardens	1	...	...	...	...	...
Trewhitt's crescent	1	...	1	...	...	...	...
Tunstall terrace	1	...	...	...	...	...
Violet street	1	...	1	...	...	...
Vine street	3	...	...	...	...	...
Walton's buildings.....	1
Washington street	1	...	...
Waterworks road	1	...	1	...	...	...
Well street	1	...	...	1	...	2	1	...	...	...
Wellington lane	2	1	2	...	...	1	...
West street	2	...
Westlands	1	...	...	...	...	...
West Moor road	2	...	...	...	...	...	...
Westbourne road	4	1	4	...	...	...	...
Williams street	5	...	4	1	1	1	1
Willmore street	1	...	...
Wilson street	1	...	...	...	...	1	...	...	...	1
Woodbine terrace	2	...	...	...	...	...
Workhouse, The	2	...	...	...	...	...	...

TABLE VII.—CONTINUED.

SUNDERLAND NORTH.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Albany street	1	...	1	1	...	...	...
Barclay street	1	...	...	...	1	1	...
Barrington street	1	...	...
Bede street	6	1	2	...	...	...	...
Bloomfield street	1	...	1	...	...	...	...
Brandling street.....	4	...	4	...	1	...	...
Bright street.....	6	3	3	...	...	...	...
Byron street	1	...	...	1	...	1	...	...	...	...
Cage hill	1	...	...	1	1	...	...
Causeway, The	1
Charles street	1	...	...	...	...	...
Chilton street	1	1	...	...	...	...	...
Church street North.....	...	2	...	...	1	1	3	...	...	...	2
Coast Guard station	3	...	2	...	...	...	...
Colliery square	2	...	...	...	...	...
Cumberland street	1	...	...	...	...	...
Dame Dorothy street	3	1	3	...	1	1	1
Devonshire street.....	2	...	2	...	...	...	...
Dinsdale road	2	...	2	...	...	...	...
Dock street	1	5	...	1	...	...	1
Dock street East	2	...	...	1	1	2	1	...	...	...
Dundas street	1	...	...	1	3	1	...	...	...	...
Duke street	1	...	...	1	...	1	...	...	...	...
Ellerslie terrace	4	1	3	...	...	...	...
East Whickham street	1	...	...	...	...	...	...	...	...	...
Empress street	1
Eglinton street	1	...	...	...	...	...
Eglinton street North.....	...	1	...	...	2	...	...	...	...	...	...
Finsbury street	2	1	2	1	...	...	...
Francis street	2	...	1	...	...	...	...
Fulwell road	2	...	...	...	1	2	1	...	...	...
Garden court	1	...
Gladstone street	1	...	...	1	1	2	...	1	...	...
Glenthorpe avenue	1	...	...	...	...	...
Hampden road	2	...	...	...	...	...	...
Harbour view	1	...	...	...	...	...
Hardwicke street	6	...	4	...	...	1	...
Hedworth street.....	...	1	...	...	1	...	2	...	1	...	...
Hartington street.....	1	1	1	...	...	...	...
Hedworth place	1	...	...	...	...	1	...	...	...	...
Hood street.....	7	...	1	1	...	1	...
Horatio street	2	1	1	1	...	...	...

TABLE VII.—CONTINUED.

STREET.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Holyoake terrace	1	..	..	..	..	..	..
Howick place	1	..	..	..	..	1
Howick street	3	..	3	..	..	..	..
Inverness street	4	..	4	..	..	..	..
Liddeil terrace	1	..	1	..	..	..	..
Look Out hill	1	..
Mill row	1	..	1	..	..	..	..
Millum terrace	1	..	..	..	1	..	..
Monk street	1	..	..	..	..	..	..
Monkwearmouth hospital	1	..	..	..	..	..	..
Moreland street	1	..	..	..	..	..	..
Newcastle road.....	1	..	..	..	..	..	..
North Bridge street	1	..
Osborne street	1	..	1	..	..	..	..
Parkside terrace	1	..	..	..	..	..	..
Portobello lane	2	..	1	1	..	..	1
Rendlesham street	1	..	..	..	..	1
Richmond street	2	..	2	..	..	..	..
Ripon street	7	..	..	..	..	..	..
Roker avenue	1
Roker Baths road	1	..	1	..	..	..	..
Roker Park road	1	..	..	..	..	..	..
Rosebery street	1	..	..	..	..	..
Rothsay street	1	..	..	..	..	1
Roxburgh street.....	1	..	..	..	..	..	..
Sandringham road	1	..	1	..	..	..	..
Society lane	1	..
Southwick road	2	1	..	..	..	..	..
Stansfield street	1
Stobart street	1	3	1	..	..	..	..
Swan street	1	..	1	..	..	..	..
Thomas street North	1
Victor street	2	..	1	..	..	1
Wallace street	1	..	..	1	1	2	..	..	..	..
Warwick street.....	1	..	1	..	..	..	..
Wayman street	1	..	..	9	..	2	..	..	..	..
Whickham street.....	1	..
Whickham street East	1	..	1	..	..	..	..
Whitburn street	3	2	..	1	..	1	1
Wilson street North	4	..	4	..	..	..	1
Yorke street North	1	..	1	..	..	..	..
Zetland street	1	..	..

TABLE VIII.

Showing the STATE of VACCINATION in the entire Districts of the Sunderland Union for the Year ending December, **1909**, and for the Ten preceding Years.

(AS FURNISHED BY THE VACCINATION OFFICERS).

Year.	Births Regis- tered.	Total Vaccinated.		Postponed by Medical Authority.	Died previous to Vaccin- ation.	Removal to places unknown or other Unions.	Certificates of (Conscientious Objection) Exemption.
		Succ.	Insus- ceptible.				
1899	6501	4706	34	173	924	629	
1900	6651	4770	18	280	909	625	49
1901	6622	4967	26	208	855	527	39
1902	6700	5008	30	160	747	715	40
1903	6743	5508	22	102	802	267	42
1904	6737	5551	28	93	834	189	32
1905	6784	5725	26	82	730	163	53
1906	6996	5831	97	97	767	195	66
1907	6913	5613	35	94	709	287	175
1908	6793	5339	39	104	680	239	372
Average for 10 years, 1899-08 }	6744	5302	35	139	796	384	...
1909	6171	4702	32	107	612	208	510

Annual Report of the Chief Sanitary Inspector.

Health Office,
Town Hall,
Sunderland,
May, 1911.

To the Chairman and Members of the Health Committee.

Gentlemen,

I have the honour to submit to you my Sixteenth Annual Report, wherein you will find detailed information of the work performed by the Sanitary Inspector's Staff during the year 1910.

INSPECTIONS.

Visits for the purpose of inspecting dwelling houses (including tenemented houses) number 32,603. Infectious Diseases Notifications occasioned 735 visits. Factories, Workshops, Workplaces, Domestic Workshops and Outworkers dwellings necessitated 3,161 visits. Further visits of inspection include—to Bakehouses 567, to Dairies, Cowsheds, and Milkshops 1,566, to Slaughter Houses, Butchers, Greengrocers, Fishmongers' Shops, and Provision Stores 6,469, and to Common Lodging Houses, 411 visits. Care and discretion is used in respect to business premises, to avoid undue officiousness on the one hand, and on the other to maintain an efficient measure of inspection, methodical and comprehensive.

For consultative appointments to meet owners, agents, and building tradesmen, to give advice as to sanitary repairs and alterations, 600 visits have been made.

The number of inspections made to premises while work was in progress, total 6,631, and 3,691 calls in quest of information, service of notices, etc., were made.

During the year the total number of inspections made number 60,827 (see Table I.)

NUISANCES.

Under the various Public Health Acts, Bye-Laws, and Regulations, notices numbering 11,280 have been served. Of these, 9,290 were Intimation Notices and 1,990 were Statutory Notices. Careful and systematic inspection of the Borough is regularly made. Nuisances are frequently abated on the Inspector personally drawing the owner's attention thereto. (See Tables II. and III.)

OVERCROWDING.

The amount of overcrowding which would justify legal proceedings is again practically nil ; 35 notices have been served but no difficulty was experienced in obtaining compliance, they were resultant conditions of unemployment, for there has been no recent lack of housing accommodation within the Borough.

DRAIN TESTING.

By complaint or request, the drains of 55 dwelling houses have been tested, 13 were defective. On suspicion of nuisance, 100 drains were tested, and 44 found defective. After cases of Enteric Fever or Diphtheria the drains and sanitary fittings of 151 houses were tested, 20 proving defective. 953 new drains were tested under water pressure ; the total number of drains tested with water, smoke, or chemical grenades was 558. (See Table V.)

COMPLAINTS.

The total number of complaints received at the Office either verbally or in writing was 255 ; many of these on investigation proved to be groundless.

STRUCTURAL ALTERATIONS.

Privies and ashpits were abolished in 376 cases, and 365 water-closets and moveable ashpits substituted. 295 broken or otherwise defective W.C. basins were replaced by new wash-down pedestal basins ; 19 ashbins out of repair were replaced by new ones ; drains of 376 premises were either repaired or relaid ; bath, sink or lavatory waste pipes were in 123 cases renewed ; new earthenware drain pipes were laid or relaid with four inch pipes to a total length of 11,082 feet ; also 626 feet of 6 inch pipes. Defective soil and ventilating shaft pipes were replaced by 3,908 feet of heavy cast iron pipes. (See Table IV.)

INFECTIOUS DISEASES.

It is again a matter of satisfaction that no case of small-pox was notified in the Borough during the year, the contacts visited having had communication with the disease in outside districts,

In consequence of the prevalence of Measles, and the closing of Infant Schools, 42 Class Rooms and 13 Cloak Rooms were disinfected by Officials of the Health Department. (See Tables I. and VII.)

TENEMENTED HOUSES.

As is usually the case, a large number of visits, viz. : 20,193 have been made to this class of property ; constant supervision is necessary of tenements, mostly old property, where three and more tenants are housed. 5789 notices were served on tenants to lime-wash yards, passages, etc. used in common, and 574 notices have been served on owners to limewash tenemented premises

DAIRIES, COWKEEPERS, AND MILKSHOPS.

There are 11 Cowkeepers within the Borough, two less than last year, the approximate number of cows being 171.

The milk register records the names of 558 persons registered for the sale of milk ; these have been regularly visited, the number of inspections amounting to 1,341. Notices occasioned by infringements of the Regulations were served on 108 milk-dealers besides a number of verbal notices, which were, as a rule, promptly attended to. In two cases it was found necessary to take out summonses for breach of the Regulations. One was fined 10/-, the other dismissed. In three cases where Infectious Diseases was notified as occurring on premises used for the sale of milk, the sale was discontinued pending the removal or recovery of the patient, and the subsequent disinfection of the premises. (See Table VIII.)

SLAUGHTER-HOUSES AND BUTCHERS' SHOPS.

The Slaughter-houses and Butchers' Shops have been regularly inspected, 5,635 visits having been made thereto, and 834 inspections were made of Fish, Fruit, and Provision Shops.

The Report on Slaughter-Houses in the Borough, referred to in my Annual Report of last year, is still under the consideration of the Sub-Committee. It is expected a solution of this matter will be reached in a short time ; when this is done, it will be possible to give better supervision to the slaughtering of animals for food. It is gratifying that the Master Butchers give every assistance in cases where they have reason to suspect that any animal slaughtered is of doubtful condition as to its fitness for food. The fact that 37 carcasses of beef, and 10 carcasses of pigs, which were condemned as unfit for food, were all surrendered without the necessity of obtaining a Magistrate's Order for their destruction, speaks for itself. (See tables I. and VI.)

COMMON LODGING HOUSES.

Accommodation for 821 lodgers is provided by the 19 Common Lodging Houses in the Borough. This is one house less and six lodgers less than last year. These houses have been regularly visited, and found to be in good order. (See Table XI.)

OFFENSIVE TRADES.

There are 172 premises on which offensive trades are carried on. They are subjected to careful supervision

FACTORIES AND WORKSHOPS.

There are 253 registered Factories in the Borough. In order to bring several Factories and Workshops into compliance with the Sanitary Accommodation Order, 1903, notices have been served resulting in the provision of twelve sanitary Conveniences. Also on the register we have 547 Workshops, 114 Workplaces and 147 Domestic Workshops. (See Tables XVI. and XVII.)

OUTWORKERS.

Ninety circular letters were despatched to firms requesting them to forward lists of Outworkers to this Department; thirty-two reports to H.M. Factory Inspector, eight to other Authorities, and one to the Home Office. (See Table XVIII.)

ANALYSIS OF FOOD, DRUGS AND WATER.

Of the Samples taken during the year, 216 were formal and 119 informal purchases made under the "Sale of Food and Drugs Act," and 261 samples of water and milk were obtained for the purpose of Bacteriological Examination. (Detailed results will be found in the Medical Officer of Health's Report).

With respect to the samples taken under the "Sale of Food and Drugs Acts," twelve were the subject of legal proceedings, details of which will be found in Tables 19, 20 and 21.

CLERICAL WORK.

164 persons were reported to the Health Committee for non-compliance with notices served upon them in respect to abatement of nuisances; in each instance the Committee authorised proceedings to be taken; intimation to that effect was given to the persons

responsible, and only in nine cases was the issue of summonses necessary. (For results of proceedings see Table 19). 754 letters and 387 circular letters were forwarded with respect to matters in connection with routine office work, and in addition the following circular letters notifying the occurrence of Infectious Diseases in dwelling houses were forwarded as follows :—

To the Royal Infirmary	107
„ Eye Infirmary.....	52
„ Monkwearmouth Hospital	52
„ Public Libraries	208
„ Private Libraries	312
„ Laundries	1040
„ Day Schools	687
„ Sunday Schools.....	324

The clerical work of the Office has a constant tendency to increase. The coming into operation of “ The Town Planning Act ” last year meant a considerable addition of itself, to the already large amount of clerical work which this Office has to contend with.

SANITARY CONVENIENCES.

I have inserted figures (Table 22) giving the number and description of Sanitary Conveniences in use within the Borough. From these figures it will be seen that 75·75 per cent. of the dwelling houses are provided with the Water carriage system of sewage disposal.

The remaining 24·25 per cent. are on the Conservancy system, for although there are 2·35 per cent. provided with Water closets, they also have a privy and must therefore be classed with the Conservancy system ; 2·09 per cent. have open midden privies ; 18·72 have covered midden privies ; whilst 1·09 per cent. have pan privies.

Table (XXIII.) shows the type of Convenience with which the Factories and Workshops are provided, excepting domestic and other Workshops, which are included in table XXII. It is proposed to deal with four of the above-mentioned Ash Closets at an early date, the other four remaining, as there is not a sewer available. With regard to the privies erected over manure pits, the excremental matter is covered by manure from the Stables, and the contents of the pits are removed without any nuisance being caused by such removal. (See Tables XXII. and XXIII.).

HOUSING AND TOWN PLANNING ACT.

In connection with the above Act, a number of dwelling houses, comprising 987 tenements and 1442 dwelling rooms, have been inspected in detail, the information obtained recorded and tabulated for future use. Thirty-six Closing Orders have been made in respect of this number of dwelling houses, prohibiting the use thereof for human habitation until, in the opinion of the Council, the said dwelling houses have been rendered fit for human habitation ; repairs and alterations are in progress in the majority of them.

I have again the pleasure to acknowledge with thanks the loyal and hearty manner in which my deputy, Mr. J. S. Watson and the Staff generally, have supported me in carrying out the work of the Department. It is only by such co-operation and mutual understanding, that we are able to discharge our duties with a minimum amount of friction, with the public.

I am, Gentlemen,

Your obedient Servant,

JOHN PENNOCK,

Chief Sanitary Inspector.

May, 1911.

TABLE I.

Showing Visits made by each Inspector.

INSPECTIONS.	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District.	No. 6 District.	No. 6a District.	Workshops Inspector.	Totals.
Factories.....	..	..	..	..	..	..	..	744	744
Workshops .....	..	..	..	..	..	..	..	1689	1689
Factory and Workshop Acts :—									
Bakehouses .....	..	..	2	..	..	..	..	567	569
Laundries .....	..	..	..	6	10	..	..	16	32
Domestic Workshops .....	..	..	..	..	..	..	..	140	140
Outworkers .....	..	..	..	..	..	..	..	249	249
Workplaces :—									
Restaurant .....	..	..	..	3	1	..	..	73	77
Stables, etc .....	..	..	1	33	12	6	9	..	61
Other.....	..	..	..	3	4	..	1	269	277
Dairies, &c. :—									
Cowsheds .....	..	73	6	6	12	2	..	10	109
Dairies and Milkstores .....	..	..	6	14	12	63	17	1345	1457
Ice Cream Stores and Stalls ..	..	..	..	5	..	..	..	51	56
Samples :—									
Sale of Food and Drugs	22	6	164	141	30	42	34	45	484
Bacteriological.....	38	..	67	35	46	37	35	..	258
Provisions :—									
Fruit and Provision Stores ..	21	369	11	70	23	11	14	..	519
Fish Shops	8	261	2	15	9	16	4	..	315
Butcher Shops .....	..	450	..	7	10	1	16	..	484
Slaughter-houses	108	3845	268	398	184	200	148	..	5151
Smoke Observations.....	..	..	..	..	2	..	..	..	2
Dwelling Houses :—									
Dwelling Houses, Inspections of 1043	1362	4158	976	2373	145	2353	..	12410	
re Infectious Diseases Notifi- cation	94	51	82	95	119	192	102	..	735
re Infectious Diseases Contacts.	36	..	13	25	80	1	10	..	165
Tenemented Houses	3431	4261	..	2338	2904	5751	1508	..	20193
Common Lodging Houses.....	92	260	..	..	..	..	59	..	411
Inspection of work in progress, Drains, W.C.'s, etc.	252	928	1540	849	504	1306	1255	..	6634
Appointments and Advisory Visits	20	126	29	73	128	56	145	223	800
Offensive Trades :—									
Tripe Preparing .....	..	..	..	..	3	..	1	..	4
Skin Preparing .....	..	104	..	..	..	..	..	..	104
Marine Stores .....	..	..	..	5	6	..	2	237	250
Fried Fish and Fish Curing ..	22	..	..	14	12	..	1	519	568
Hide and Skin Warehouses ..	..	..	1	..	..	..	1	..	2
Tallow Dealers .....	..	..	..	..	..	..	..	..	..
Other.....	341	..	329	502	199	1376	323	344	3414
Housing of Working Classes Act—									
Number of Tenements Inspected	233	66	1	115	147	268	206	..	987
Number of Rooms Inspected and Measured	372	45	7	66	242	331	330	..	1442
Number of Houses reported to Council	17	10	..	..	5	4	..	..	36
Total Inspections	6150	12217	6687	5794	7077	9808	6574	6521	60828

TABLE II.
SUMMARY OF NOTICES for the Abatement of Nuisances
served during 1910.

Nature of Notice.	Preliminary.		Statutory.		Totals.
	Owner.	Occupier	Owner.	Occupier	
To Cleanse Premises	1	26	..	27	54
,, and Disinfect premises after Infectious Disease .....	..	600	..	..	600
To Abate Nuisance arising from					
Drains	264	..	112	..	376
,, Water-Closets	428	19	234	..	681
,, Privies and Ash-pits ..	286	..	245	..	531
,, Yard Pavements.....	108	4	49	..	161
,, Dilapidations in Houses	322	..	136	..	458
,, Defective Roofs, Spouts etc.	488	..	173	..	661
,, Animals and Fowls ...	21	8	7	5	41
,, Overcrowding	14	14	5	2	35
,, Manure and Refuse ..	23	36	34	21	114
,, Other Nuisances	214	3	179	1	397
Provide Domestic Water Supply	28	..	12	..	40
To Lime Wash Dwelling					
Houses .....	..	5251	..	..	5251
,, Common Lodging Houses .....	..	..	..	..	..
,, Bake-Houses .....	..	..	..	22	22
,, Factories & Workshops	..	..	..	54	54
,, Dairies, Cowsheds, and Milkshops "Regulations"	..	..	..	241	241
,, Yards & Passages.....	574	558	..	..	1132
Under H.W.C. Acts .....	..	..	36	..	36
,, Provisional Order .....	..	..	218	..	218
,, P.H.A. Section 36 .....	..	..	177	..	177
Totals	2771	6519	1617	373	11280

TABLE III.

Showing Notices served in each District.

Nature of Notice	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District.	No. 6 District.	No. 6a District.	Workshop Inspector.	Totals.
To Cleanse Premises	6	..	4	36	3	3	2	..	54
To Cleanse Premises after Infectious Disease	82	51	82	96	117	86	86	..	600
Abate Nuisances arising from :—									
Drains	99	50	10	32	54	60	67	4	376
Water-Closets	97	185	34	55	75	139	60	36	681
Privies and Ashpits	2	149	66	37	115	98	64	..	531
Yard Pavements	12	33	10	8	24	69	4	1	161
Dilapidated Houses	97	173	6	51	74	24	22	11	458
Defective Spouts	46	127	56	52	216	126	38	..	661
Animals and Fowls	6	17	1	6	3	3	5	..	41
Overcrowding	6	12	..	4	2	4	6	1	35
Manure and Refuse	9	54	3	6	3	4	12	23	114
Other Nuisances	122	29	16	..	6	30	71	123	397
Provide Domestic Water Supply	10	16	1	1	..	7	5	..	40
To Lime Wash Dwelling Houses	1401	1326	..	391	817	642	674	..	5251
,, Common Lodging Houses	..	..	..	..	..	..	..	..	..
,, Bake-Houses .....	..	..	..	..	..	..	..	22	22
,, Factories and Workshops .....	..	..	..	..	..	..	..	54	54
,, Dairies & Cow- sheds .....	..	..	..	..	..	..	..	..	..
,, Yards & Passages	259	49	..	215	536	38	35	..	1132
Under H.W.C. and Town Planning									
Acts	17	10	..	..	4	4	1	..	36
,, Provisional Order	11	8	18	8	49	4	120	..	218
,, P.H.A. Section 36	43	64	6	15	8	23	18	..	177
Dairies, Cowsheds and Milkshops Regulations .....	..	..	..	..	..	..	..	241	241
Totals	2325	2353	313	1013	2106	1364	1290	516	11280

TABLE IV.
WORK DONE.

Waterclosets :—			
Cleansed	113	Smoke observations	2
Structural Repairs	129		
New Basins fixed	205	Housing of Working Classes	
W.C. Cisterns :—		and Town Planning Acts :—	
New Cisterns fixed	109	Number of Houses Repaired	1
Cisterns Repaired	111		
Soil and Vent Pipes :—		Dwelling Houses :—	
Repaired	5	Internal Repairs	227
New Pipes fixed (length		Roof	181
3908 ft 4-ins.)		Spouts Renewed and Repaired	495
		Overcrowding (abated)	19
		Domestic Water Supply	75
Drains :—			
Cleansed or Repaired	376	Cleanse and Limewash :—	
Bath, Sink, or Lavatory Waste		Dwelling Rooms	4570
Pipes Repaired or Trapped	40	Staircases and Passages	1256
Bath, Sink, or Lavatory Waste		Sanitary Conveniences	1504
Pipes Reconstructed	83	Yard Walls	949
Stoneware Pipes Laid (length			
4 in).	11082	Yard Pavements :—	
Stoneware Pipes Laid (length		Cleansed	43
6 in).	626	Repaired	26
Heavy Metal Pipes (length)	323	Cemented or Paved	71
Urinals :—			
Cleansed or Repaired	4	Accumulation of Manure or	
New Urinals Provided	4	other refuse :—	
		Removed	69
Privies :—		Manure Pit Repaired	5
Repaired	11	New Manure Pit Provided .	1
Abolished	376		
W.C.'s Substituted	365	Unsound Food Seizures :—	
Ashpits :—		Carcases	47
Repaired	7	Animal "Viscera"	62
Abolished—Dust Bins		Fruit and Vegetables	
Provided;.....	144	2 ton, 2 cwt., 26 lbs...	
Dust Bins, Renewals	19	Samples	
Animals kept as a Nuisance		Food and Drugs	335
(abated)	3	Bacteriological	261

TABLE V.
DRAINS TESTED.

	Nature of Test.			Total.	Defective
	Water.	Chemical.	Smoke.		
On Complaint	21	10	24	55	13
On Suspicion of Nuisance	20	67	13	100	44
On Account of Infectious Disease	43	104	4	151	20
Work in Progress	953	16	54	1023	56
Retested	214	4	11	229	38
Totals	1251	201	106	1558	171

TABLE VI.

TABLE OF FOOD CONDEMNED AND DESTROYED.

NATURE OF UNSOUND FOOD.	Quantity.
Beef; 37 carcasses	21,588 lbs.
Pork, 10 carcasses	1,046 lbs.
Mutton	40 lbs.
Viscera of Animals	62
Red Cabbage	420 lbs.
Carrots	10 cwt.
Cherries	30 lbs.
Strawberries	10 lbs.
Strawberries	1 ton, 2 cwt.
	2 qrs.
Lemons	5 cwt.
Tomatoes	33 lbs.
Tomatoes	11 lbs.
Pears	8½ lbs.
Plums	6½ lbs.
Water Melon	1 lb.

TABLE VII.

WORK OF DISINFECTOR.

Articles.	Disin- fected	De- stroyed	Premises Disinfected.	No.
Beds	718	11	School Class Rooms.....	42
Mattresses	295	7	School Cloak Rooms ...	13
Blankets	789	1	Dwelling House and	
Pillows	1413	5	School Conveniences ..	87
Quilts	664	..	Rooms of Dwelling Houses	
Sheets	487	..	Disinfected	1261
Bolsters	1000	..		
Shawls	79	..		
Carpets	90	1		
Sundries	1693	..		
Totals	7228	25		1403

Number of visits in connection with Infectious Diseases	853
Number of Patients removed to Borough Sanatorium	299
„ „ „ Otherwise	5

TABLE VIII.

DAIRIES, COWSHEDS, AND MILKSHOPS.

Dairymen, Cowkeepers Registered	11
Number of Cowsheds ,,	18
,, Cows (approximate)	171
,, Milkshops on Register	558
Inspections of Dairies, Cowsheds and Milkshops	1341
Notices to Register for Sale of Milk	127
Circular Letters for Sale of Milk	6
Letters drawing attention to Contraventions of Regulations	108

TABLE IX.

REGISTERED COMMON LODGING HOUSES.

LOCALITY OF HOUSE.	No. of Rooms	No. of Lodgers	No. of Single Beds.	No. of Double Beds.	No. of Beds under the Registered Accommodation
4 and 5, Bedford Street	12	78	78	..	..
3 and 4, Charles Street	11	37	37	..	..
41, 42, and 43, Spring Garden Lane	11	41	27	7	..
38, Spring Garden Lane	6	21	5	6	4
6, Maud's Lane	8	37	37	..	..
1, Horn's Lane	8	31	31	..	..
10, Church Street East	8	36	36	..	..
38 and 39, Lombard Street	3	9	9	..	..
2, Queen Street East	6	47	47	..	..
2, Arras Lane	6	52	38	1	12
3, Mill Street	8	22	22	..	..
3 and 4, Queen Street East	6	46	46	..	..
14 and 15, George Street East	17	46	36	5	..
29, High Street East	14	79	69	5	..
5 and 6, High Street East	14	185	185	..	..
170, High Street East	2	5	3	1	..
29, Warren Street	2	9	5	2	..
195½, High Street East	2	15	13	1	..
22, Lambton Street	6	25	25	..	..
Totals	150	821	749	28	16

TABLE X.

COMPLAINTS RECEIVED AT THE HEALTH OFFICE,
and attended to during the year 1910.

NATURE OF COMPLAINTS.	Unfounded	Totals.
Smoke Nuisance	2	2
Overcrowding	4	22
Defective Roofs and Spouts	2	22
Dirty Yards and Rooms	3	26
Yard Pavement out of Repair .....	..	3
*Drains out of Repair	12	63
Animals kept as a nuisance	2	9
Water Closets out of Repair	1	44
Privies and Ashpits out of Repair	1	9
Miscellaneous	9	55
Totals	36	255

*12 of these were requests to test drains, not actual complaints.

TABLE XI.

OFFENSIVE TRADES.

The Offensive Trades carried on in the Town are as follows :—

Chemical Works	1
Fish Curing Houses	4
Fish Frying	112
Gut Scraping Houses	3
Marine Stores	32
Oil and Grease Works	4
Paint Works	2
Skin Warehouses	3
Tallow Melting Works	1
Tripe Preparers.....	10
Total	172

TABLE XII.
REPORTS FROM INSPECTORS.

District.	To Borough Surveyor.	To Cleansing Superintend- ent.	To Chief Inspector.	To Water Company.
1	6	3	9	..
2	6	14	10	..
3	3	12	20	2
4	5	9	19	..
5	8	22	9	..
6	7	5	5	4
6a	7	19	17	3
Total	42	84	89	9

TABLE XIII.
FACTORIES AND WORKSHOPS.

The following work has been performed by the Inspector appointed for this purpose.

VISITS OF INSPECTION.	
FACTORIES AND WORKSHOPS :—	
Factories.....	743
Workshops	1417
Workplaces	272
Restaurant Kitchens	73
Domestic Workshops	140
Laundries	18
Outworkers, Home	225
„ Employers of.....	24
BAKEHOUSES :—	
Wholesale	16
Retail	399
Domestic	152
OFFENSIVE TRADES :—	
Marine Stores	237
Fish Frying	519
Other.....	232
Shop Hours Act, Enquiries	50
„ „ Early Closing, Master Butchers' Petition.....	198
Seats for Shop Assistants	21
MILK REGULATIONS :—	
Dairies (54) Cowsheds (10)	64
Dairies Produce	4
Milk Stores, Shops	1277
Ice Cream Shops, Stores or Stalls	51
Food and Drugs (Samples)	45
Other Visits	344
Total Inspections	6521

TABLE XIV.

Showing the Notices, etc., served by the
Workshops Inspector.

To Cleanse or Limewash Factory or Workshop	33
" " Bakehouses	22
" " Ice Cream Shops	2
" " Restaurant Kitchens	1
" " Fried Fish Shops	2
" " Sanitary Conveniences.....	14
" " Workplaces	2
To abate Nuisances from :—	
" Defective Sanitary Conveniences	19
" Water Closet opening direct to Factory	1
" Defective Drains.....	3
" Defective Window Frames, etc.	1
" Walls, Floors, Ceilings, Roofs, Spouts, etc.	10
" Yard Pavement	1
" Gas Stoves	2
" Accumulation of Trade Refuse	23
" Overcrowding	1
To provide Suitable and sufficient Sanitary Conveniences	4
" Separate Sanitary Conveniences for Sexes	1
" Artificial Light to Sanitary Conveniences	3
" Partitions to Sanitary Conveniences;.....	5
" Screens to Sanitary Conveniences	3
" Drainage to Workshop Floor	1
" Lists of Outworkers.....	90
" Seats for Shop Assistants	3
To Display Abstract of Factory and Workshop Act	16
" Shop Hours Act	12
To Register for the Sale of Milk	127
" " " Circulars	6
Notices <i>re</i> Dairies, Cowsheds and Milkshop Order, 1885 Regulations	
" Section 17 (2) (Oil Sold).....	11
" " (c) (Bedrooms adjoining Milkshop)	34
" " (5) (Milk Vessels uncovered)	60
" To cleanse Milk Vessels	3
Reports to H.M. Factory Inspector :—	
No Abstract Displayed	12
Defects Remedied	14
Removals	6
Reports to other Authorities. (Outworkers).....	8
Other Reports :—	
To Medical Officer of Health	2
" Chief Inspector	7
" Borough Surveyor	4
" Cleansing Superintendent	2
" Home Office	1
Totals	572

TABLE XV.

FACTORY AND WORKSHOPS ACTS.

Showing the Number of Registered **Factories** in the Borough.

FACTORIES.	No. of Factories. . .	FACTORIES.	No. of Factories
Ale Bottlers.....	6	Joiners	26
Artificial Stone Makers	2	Laundries	7
Bakers	6	Lead Glazing	1
Bicycle Makers	2	Millers	5
Block and Mast Maker.....	1	Mineral Water Manufacturers	6
Bookbinders.....	3	Model Makers	2
Boot and Shoe Makers	8	Organ Builder	1
Bottle Makers	2	Paint Manufacturers	2
Box Maker	1	Paper Bag Maker	1
Brass Founders	7	Pattern Maker	1
Brewers	5	Picture Frame Maker	1
Brick Makers	2	Potters	2
Brush Makers	1	Plumbers	3
Cabinet Makers	8	Preserve Makers	3
Carriage Builders	3	Printers.....	31
Cattle Spice Maker	1	Rope Manufacturers	6
Cement Manufacturer	1	Sail and Flag Makers	2
Compass Makers	4	Sausage Makers	2
Coppersmith.....	1	Sculptor	1
Dyer	1	Shipbuilders and Repairers ...	12
Electrical Engineers	1	Ships' Lamp Makers	2
Electricity Manufacturers	3	Steel Manufacturers	3
Engineers	26	Steering Wheel Maker.....	1
Electro Plating	1	Stocking Knitter	1
File Maker	1	Stone Dressers	2
Finings Manufacturer	1	Tent Maker	1
Firewood Factory.....	1	Timber Sawyers	7
Galvanizer	1	Tobacco Manufacturer.....	1
Gas Manufacturer.....	1	Whiting Manufacturer	1
Glass Manufacturers	2	Window Blind Maker	1
Ice Cream Maker	1	Wood Turners	4
Ironfounders	10		
			253

TABLE XVI.

Showing the Number of Registered Workshops, Nature of Trade,
and Number of Employees.

TRADES.	Number of each.	Em- ploying.		TRADES.	Number of each.	Em- ploying.	
		Males.	Females.			Males.	Females.
Bakers and Confectioners	79	70	165	Motor Repairers	1	2	..
Bicycle Makers	7	12	..	Paper Bag Maker	1	..	3
Blacksmiths	15	50	..	Piano Repairers	1	4	..
Block and Mast Makers	2	5	..	Pickle and Sauce Makers	3	..	11
Boat Builders	4	15	..	Picture Frame Makers ..	6	12	2
Botanical Brewers	1	4	..	Pipe Makers	3	13	6
Boot and Shoe Makers..	40	72	..	Plasterers	2	14	..
Brush Makers	1	6	4	Plumbers	25	120	..
Cabinet Makers	22	72	..	Rope Maker.....	1	6	..
Cartwrights	7	24	..	Sausage Maker	2	2	..
Carver and Gilder	5	8	..	Sculptors	6	20	..
Coach Builder	1	12	..	Stained Glass Artist	1	1	..
Coopers	3	15	..	Stocking Knitters	5	..	21
Disinfectant Maker	1	1	2	Sugar Boilers	3	6	12
Electrical Engineers	1	3	..	Tailors	66	219	130
Engravers	2	5	..	Tinsmiths	7	10	..
French Polishers	7	19	..	Umbrella Maker	1	1	1
Gun Maker	2	3	..	Upholsterers.....	9	40	18
Harness Makers	7	24	..	Watchmakers.....	10	21	8
Horse Shoers	10	29	..	Water-Proof Manufacturer	1	2	..
Joiners	48	160	..	Weighing Machine Maker	2	6	..
Laundries	2	..	12	Window Blind Maker ...	1	1	..
Mattress Maker	4	33	14	Wire Workers	3	6	..
Milliners & Dressmakers.	114	..	978				
Model Makers	2	13	..	Totals	547	1161	1287

TABLE XVII.
SHOWING THE NUMBER OF DOMESTIC WORKSHOPS.

Nature of Business	Number of each.
Bakers and Confectioners.....	61
Bicycle Makers	2
Boot and Shoe Repairers.....	22
Cloggers	1
Coopers	2
Dressmakers	13
French Polishers	3
Ice Cream Makers	14
Joiners	8
Laundries	2
Locksmith	1
Picture Frame Maker	1
Stocking Knitter	1
Tailors.....	7
Tinsmiths	4
Toymakers	2
Watchmakers.....	3
Total	147

TABLE XVIII.
SHOWING THE NUMBER OF WORKPLACES.

Nature of Business.	Number of each.
Ale Bottler	1
Auctioneer	1
Bacon Washer	1
Bottle Exchange	1
Builders' Merchants	6
Haulage Contractors	15
Mews	17
Oil Works	1
Photographers	11
Pottery Warehouse	1
Painters	2
Restaurant Kitchens	31
Slaters	3
Salt Packers	6
Ship-chandlers	2
Sign and Ticket Writers	3
Timber Merchants	1
Warehousemen	8
Wharfingers	3
Total	114

TABLE XIX.

MAGISTERIAL PROCEEDINGS.

Particulars of Complaint.	No.	How disposed of.	Penalties imposed
			£ s. d.
Water-closets out of repair	6	Withdrawn on abatement of nuisance and paid costs.	
Water-closets out of repair	1	Abatement Order made, and defendant fined 10/- and costs	0 10 0
Offensive Water-course	1	Withdrawn on abatement of nuisance and paid costs.	
Drain out of repair	1	do.	
Depositing fish refuse on street do.	1	Fined 2/6.....	0 2 6
	1	Fined 5/-	0 5 0
Unsound fish exposed for sale... do.	1	Fined 20/- and costs	1 0 0
	1	Dismissed	
Adulterated Milk	13	7 Dismissed	
		1 Fined 10/- and costs	0 10 0
		1 „ 20/- „	1 0 0
		1 „ 20/- „	1 0 0
		1 „ £2 „	2 0 0
		1 „ £5 „	5 0 0
		1 „ £10 „	10 0 0
Breach of Milk Regulations	1	Fined 10/- and costs	0 10 0
do.	1	Dismissed	
Selling Tartaric Acid for Citric Acid.....	1	Fined 20/- and costs	1 0 0
	29		

TABLE XX.
ANALYSIS OF FOOD AND DRUGS.

Articles Analysed.	No. Analysed.	Result of Analysis		Extent of Adulteration.	Action taken.
		Genuine.	Adulter- ated.		
Milk	166	127	39	.10 per cent. Boric Acid. . .	Fined £1 & costs
				.15 " "	" £2 "
				3.37 per cent deficient in milk fat and 11.77 deficient in non fatty solids.....	" £5 "
				13.3 per cent def. in milk fat	" £10 "
				23.3 " "	" 10/- "
				4.5 per. cent. def. in non- fatty solids	" £1 "
				10.0 per cent def. in milk fat	Dismissed
				13.3 " "	"
				13.3 " "	"
				16.6 " "	"
				6.6 " "	"
				6.6 " "	"
				3.0 per cent def. in non- fatty solids	Letter of caution
				8.3 per cent. def. in milk fat	"
				3.3 " "	"
				8.3 " "	"
				11.6 " "	"
				8.3 " "	"
				6.6 " "	"
				3.3 " "	"
				5.0 " "	"
				8.3 " "	"
				6.6 " "	"
				3.3 " "	"
				8.9 per cent def. in non fatty solids	"
				2.3 " "	"
				8.3 per cent. def. in milk fat	"
				4.2 " "	"
				13.3 " "	"
				16.6 " "	"
				6.6 " "	"
				6.6 " "	"
				10.0 " "	"
				8.3 " "	"
				3.3 " "	"
				5.0 " "	"
				1.7 " "	"
				2.6 " "	"
				3.0 " "	"
				0.7 per cent. def. in non- fatty solids.....	"
				2.3 " "	"
Skimmed Milk....	7	3	4		"

TABLE XX.—Continued.

Articles Analysed.	No. Analysed.	Result of Analysis		Extent of Adulteration.	Action taken.
		Genuine.	Adulter- ated.		
Citric Acid	1	..	1	100 per cent. Tartaric Acid	Fined £1 & costs.
Butter	20	19	1	100 per cent. Margarine ..	Letter of caution legality of pur- chase doubtful.
Preserved Peas ..	4	..	4	Copper compound in drained parts—1·84 grains per lb. in liquid—0·47 grns. per lb.	Letter of caution.
„				Copper compound in drained parts—2·20 grains per lb. liquid nil.	
„				Copper Compounds in drained parts—1·40 grains per lb. in liquid—0·47 grns. per lbs.	
„				Copper compounds in drained parts—2·20 grains per lb. in liquid, nil.	
Tartaric Acid	1	..	1	Contains 0·52 per cent. Cal- cium of Sulphate	Explanation of wholesale firm accepted as satisfactory.
Oatmeal	3	3	..		
Pepper	4	4	..		
Lard	6	6	..		
Margarine	3	3	..		
Preserved Onions	1	1			
Totals	216	166	50		

TABLE XXI.
ANALYSIS OF FOOD AND DRUGS.
INFORMAL SAMPLES.

Articles Analysed.	No. Analysed	Result of Analysis		Extent of Adulteration	Action taken.
		Genu- ine.	Adult- erated		
Butter	21	20	1	100 per cent. Margarine .. 0.32 per cent. Boric Acid ..	Formal Samples taken. See Table XX
Lard	23	23	..		
Citric Acid	5	4	1	100 per cent Tartaric Acid	Formal Sample taken. See table XX.
Carbonate of Mag- nesia	3	3	..		
Tartaric Acid	5	4	1	Contains 0.62 per cent Cal- cium of Sulphate	Formal Sample taken. See Table XX.
Glycerine	3	3	..		
Gregory's Powder	3	3	..		
Ground Ginger ...	4	4	..		
Dutch Cheese	1	1	..		
American „	1	1	..		
Cheshire „	1	1	..		
Rochelle Salts ...	3	3	..		
Camphorated Oil .	1	1	..		
Baking Powder ..	1	1	..		
Blk. Currant Jam	2	2	..		
Marmalade	4	4	..		
Ground Rice	1	1	..		
Coffee	1	..	1		
Raspberry Jam ..	1	1	..		
Corn Flower	1	1	..		
Honey	1	1	..		
Turpentine	1	1	..		
Com. Liquorice					
Powder	1	1	..		
Margarine	5	5	..		
Dripping	3	3	..		
Preserved Peas ...	3	..	3		
Chocolate Beans .	1	1	..		
Chocolate Bananas	1	1			
Linseed, Liquorice and Chlorodyne					
Gums.....	1	1	..		
Chumps.....	1	1	..		
Condensed Milk ...	14	14	..		
Skimmed Milk.....	2	2	..		
Totals	119	112	7		Declaration sufficient

TABLE XXII.

Showing the number of dwelling houses and the sanitary conveniences attached thereto, viz. :—

With Water Closets (Water Carriage System)

With movable ash receptacles	17891	} 18174.
With ash receptacles	283	

With Water Closets, viz. :—

With open midden privies	55	} 563
„ covered „	503	
„ pan privies	5	

With open midden privies	502	} 5,253
„ covered „	4489	
„ Pan Privies	262	

Total 23,990

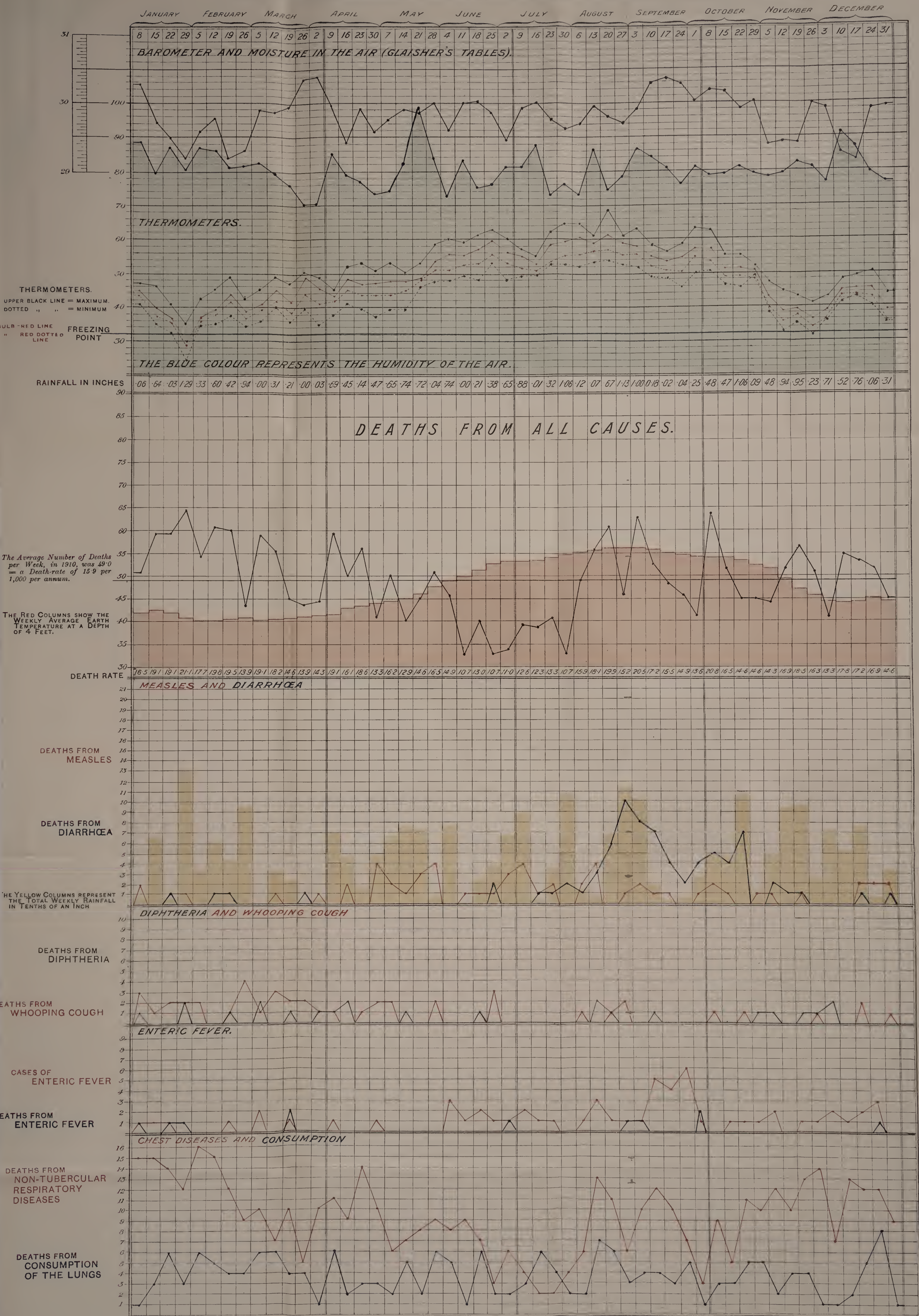
TABLE XXIII.

Showing the class of Sanitary Convenience in use at the Factories and Workshops in the Borough.

Water Closets.....	322
Trough Closets	40
Ash Closets	8
Privies	3
Privies over Manure Pits	11
Beam Privies over River or Quayside	8
Pan Closet	1

Total 393

METEOROLOGICAL AND DISEASE CHART FOR 1910.



PLAN OF THE BOROUGH OF SUNDERLAND

The dotted lines show the divisions of the Borough into Registration Sub-Districts, whose Names are indicated as follows:—

S.E.—Sunderland East; **S.W.**—Sunderland West; and **S.N.**—Sunderland North.

Showing the Deaths from Diarrhoe and Consumption, and the cases of Diphtheria, Enteric Fever, and Continued Fever during the year 1910.

	ESTIMATED POPULATION.
Sunderland East Sub-District	59,468
Sunderland West Sub-District	66,076
Sunderland North Sub-District	35,241
Whole Borough	160,785
Cases of Enteric and Continued Fevers in	RED.
Cases of Diphtheria in	YELLOW.
Deaths from Diarrhoea in	GREEN.
Deaths from Consumption in	BLACK.



